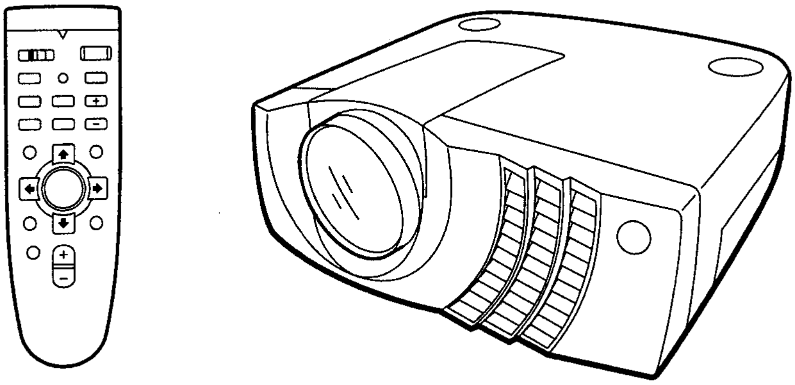
SERVICE MANUAL

MODEL	DEST.	MODEL	DEST.
VPL-PX20	WORLD	RM-PJM610	WORLD
VPL-PX30	WORLD		



LCD DATA PROJECTOR

SONY®

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING!!

AN INSULATED TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY A ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D'ÉVITER TOUT RISQUE D'ÉLECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

1. Operating Instructions

Operating Instructions 1-1
Installation Manual for Dealers 1-23
Quick Reference Card 1-36

2. Service Informations

2-1. Circuit Boards Location 2-1
2-2. Servicing Tools 2-1
  2-2-1. XA, XAA Extension Boards (70P) 2-1
  2-2-2. XB, XBB Extension Boards (50P) 2-1
2-3. Cabinet Assy Removal 2-2
2-4. Front Block Assy Removal 2-2
2-5. NF Board Removal 2-3
2-6. BA and Y Boards Removal 2-3
2-7. Power Block Removal 2-4
2-8. G Block Assy (GA, GB, GC and GD Board) Removal 2-4
2-9. C Board Removal 2-5
2-10. Optics Unit Assy Removal 2-5
2-11. BC and KS Boards Removal 2-6
2-12. Connector Block Assy Removal 2-6
2-13. BB, QA, QB, QC and QD Boards Removal 2-7
2-14. F, K Board and AC Inlet Removal 2-7
2-15. Lens Assy Removal 2-8
2-16. Prism Block and Polarizer Removal 2-8
2-17. Note on Lamp Breakage 2-9

3. Theory of Operation

3-1. BA Board 3-1
  3-1-1. Main IC Functions 3-1
  3-1-2. Signal Path 3-1
  3-1-3. Path of SYNC Processing 3-2
  3-1-4. Clamp Pulse Generation Circuit 3-2
3-2. BB Board 3-3
3-3. BC Board 3-4
3-4. C Board 3-5
  3-4-1. Timing Generator 3-5
  3-4-2. LCD Driver Control Pulse 3-5
3-5. Y Board 3-6

3-5-1. Microprocessor peripheral circuit 3-6
3-5-2. USB Circuit 3-7
3-5-3. Memory 3-8
3-6. Description of QA Board Operations 3-10
3-6-1. Switching of Video Signals 3-10
3-6-2. Switching of Audio Signals 3-11
3-6-3. Monitoring of the USB Power Supply 3-11
3-7. Description of QB Board Circuit Operations 3-12
3-7-1. INPUT A Input 3-12
3-7-2. DDC Memory 3-12
3-7-3. INPUT A Mouse Driver 3-12
3-8. Description of QC Board Circuit Operations 3-13
3-8-1. INPUT B Inputs 3-13
3-8-2. DDC Memory 3-13
3-8-3. INPUT A Mouse Driver 3-13
3-9. Description of QD Board Circuit Operations 3-14
3-9-1. RS-232C Communication 3-14
3-9-2. Reception of Remote Control Signals 3-14
3-9-3. Video Input 3-14
3-10. Description of K Board Circuit Operations 3-14
3-11. Description of KS Board Circuit Operations 3-14
3-12. Voltage Map of F, GA, GB, GC, GD Board 3-15
3-12-1. Voltages Map of F, GA, GB, GC and GD Board 3-15
3-12-2. F Board 3-15
3-12-3. GA Board 3-16
3-12-4. Main Converter 3-19
3-12-5. Basic Operations of Sub-Converter 3-20
3-12-6. Details of Parts 3-21
3-12-7. GB, GC, and GD Boards 3-22

4. Electrical Adjustments

4-1. Equipment Required 4-1
4-2. Preparations 4-1
4-2-1. Turning on the Power 4-1
4-2-2. Setting the Factory Mode 4-1
4-3. C Board Adjustments 4-1
4-3-1. R VCOM Adjustments 4-1
4-3-2. G VCOM Adjustments 4-1
4-3-3. B VCOM Adjustments 4-1
4-4. Signal Level Adjustments 4-1
4-4-1. Component Level Adjustments 4-1
4-4-2. VIDEO NTSC Level Adjustments 4-2
4-4-3. VIDEO PAL Level Adjustments 4-2
4-4-4. Y/PB/PR Level Adjustments 4-2

4-4-5. 15KRGB Level Adjustments 4-3
4-4-6. W/B HIGH Adjustments 4-3
4-4-7. W/B LOW Adjustments 4-4
4-4-8. Component Y Level Adjustment 4-4
4-5. VIDEO W/B Low Mode Adjustment 4-5
4-5-1. High Mode 4-5
4-5-2. Low Mode 4-5
4-6. Adjustments in Replacement of Prism and Optical Unit 4-6
4-6-1. VCOM Adjustment 4-6
4-6-2. Polarization Plate Adjustment 4-6
4-6-3. 3Dγ Adjustment (Outline) 4-6
4-6-4. 3Dγ Adjustments 4-6
4-7. Adjustment Item Intialize Data 4-7

5. Semiconductors

6. Exploded Views

6-1. Cabinet 6-1
6-2. Chassis Block 6-2
6-3. Optics Unit 6-3
6-4. Base Block 6-4
6-5. Optical Unit 6-5

7. Electrical Parts List

8. Block Diagrams

Overall 8-1
QA 8-4
QB 8-2
QC 8-2
QD 8-3
BA 8-3
BB 8-6
BC 8-8
C 8-9
NF 8-10
NR 8-10
S 8-10

Y 8-10
K 8-11
KS 8-11
H 8-11
F 8-12
GA (1/2) 8-12
GA (2/2) 8-13
GB 8-13
GC 8-13
GD 8-13

9. Diagrams

9-1. Frame Schematic Diagram 9-1
9-2. Schematic Diagrams and Printed Wiring Boards 9-4

Schematic Diagrams

QA (1/3) 9-6
QA (2/3) 9-7
QA (3/3) 9-8
QB (1/2) 9-10
QB (2/2) 9-11
QC (1/2) 9-12
QC (2/2) 9-13
QD 9-15
BA (1/2) 9-17
BA (2/2) 9-18
BB (1/4) 9-21
BB (2/4) 9-22
BB (3/4) 9-23
BB (4/4) 9-24
BC (1/2) 9-26
BC (2/2) 9-27
C (1/3) 9-29
C (2/3) 9-30
C (3/3) 9-31
NF 9-33
NR 9-33
S 9-33
Y (1/3) 9-33
Y (2/3) 9-34
Y (3/3) 9-35
H 9-36
K 9-37
KS 9-37
F 9-39

GA (1/2) 9-39
GA (2/2) 9-40
GB 9-41
GC 9-41
GD 9-42
Printed Wiring Boards
QA 9-5
QB 9-10
QC 9-12
QD 9-14
BA 9-16
BB 9-20
BC 9-25
C 9-28
NF 9-32
NR 9-32
S 9-32
Y 9-32
H 9-36
K 9-37
KS 9-37
F 9-38
GA 9-38
GB 9-41
GC 9-41
GD 9-42

SONY

VPL-PX20/PX30

SONY

4-073-984-11(1)

LCD Data Projector

Operating Instructions GB
Mode d'emploi FR
Manual de instrucciones ES

VPL-PX20
VPL-PX30

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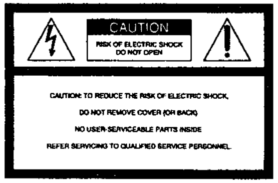
Section 1
Operating Instructions

This section is extracted
from operation manual.

WARNING

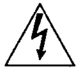
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

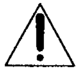


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

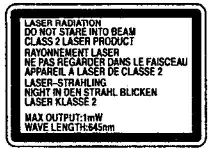


This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA

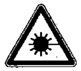
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

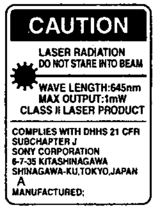


LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
RAYONNEMENT LASER
NE PAS REGARDER DANS LE FAISCEAU
APPAREIL A LASER DE CLASSE 2
LASER-STRAHLING
NIGHT IN DEN STRAHL BLICKEN
LASER KLASSE 2
MAX OUTPUT:1mW
WAVE LENGTH:645nm

This label is located on the rear of the Remote Commander.

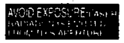


This label is located on the side of the Remote Commander.



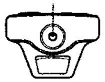
CAUTION
LASER RADIATION
DO NOT STARE INTO BEAM
WAVE LENGTH:645nm
MAX OUTPUT:1mW
CLASS II LASER PRODUCT
COMPLIES WITH DHHS 21 CFR
SUBCHAPTER J
SONY CORPORATION
6-7-35 KITASHINAGAWA
SHINAGAWA-KU,TOKYO,JAPAN
A
MANUFACTURED:

This label is located on the rear of the Remote Commander.


AVOID EXPOSURE

This label is located on the rear of the Remote Commander.

Laser light shines out of this window.



Caution

use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes

- Do not aim the laser at people or not look into the laser transmitter.
- When the Remote Commander causes malfunction, consult with qualified Sony personnel. We change the Remote Commander as new one according to the guarantee.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-Yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland

Bij dit product zijn batterijen geleverd.
Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

Warning on power connection

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe	UK, Ireland, Australia, New Zealand	Japan
Plug type	VM0233	290B	YP-12A	—[1]	VM1296
Female end	VM0089	386A	YC-13B	VM0310B	VM10505
Cord type	SJT	SJT	H05VV-F	N13237/CO-228	HVCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	13A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	DENTORI

---

1) Use the correct plug for your country.

Table of Contents

Overview

Precautions .... 7 (GB)
Features .... 8 (GB)
Location and Function of Controls .... 9 (GB)
- Front/Left Side .... 9 (GB)
- Rear/Right Side/Bottom .... 9 (GB)
- Control panel .... 11 (GB)
- Connector panel .... 12 (GB)
- Remote Commander .... 13 (GB)

Setting up and projecting

Installing the Projector .... 14 (GB)
Connecting .... 15 (GB)
- Connecting with a Computer .... 15 (GB)
- Connecting with a VCR/15k RGB/Component Equipment .... 17 (GB)

Selecting the Menu Language .... 18 (GB)
Projecting .... 19 (GB)
- Effective tools for your presentation .... 21 (GB)

Adjustments and settings using the menu

Using the MENU .... 22 (GB)
The PICTURE CTRL Menu .... 22 (GB)
The INPUT SETTING Menu .... 24 (GB)
The SET SETTING Menu .... 26 (GB)
The INSTALL SETTING Menu .... 27 (GB)

Installation

Installation Examples .... 28 (GB)
- Floor Installation .... 28 (GB)
- Ceiling Installation .... 29 (GB)

Tips for Installation .... 30 (GB)
- Unsuitable Installation .... 30 (GB)
- Notes on Installation .... 30 (GB)

Maintenance

Maintenance .... 32 (GB)
Replacing the Lamp .... 32 (GB)
Cleaning the Air Filter .... 33 (GB)
Troubleshooting .... 34 (GB)

Other

Specifications .... 36 (GB)
Index .... 42 (GB)

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not aim the laser at people or not look into the laser transmitter.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Be careful not to catch your fingers by the adjuster when you lift up the projector. Do not push hard on the top of the projector with the adjuster out.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After you turn off the power with the **I / ⏻** key on the Remote Commander or on the control panel, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution
The projector is equipped with ventilation holes (intake) on the bottom and ventilation holes (exhaust) on rear. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals every 300 hours.

On repacking

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Features

High brightness, high picture quality

- **High brightness**
  The LCD panel with microlens and the 200 W UHP lamp allow high brightness (light output 1400 ANSI lumen for VPL-PX20, and 2400 ANSI lumen for VPL-PX30) and excellent uniformity on the picture.
- **High resolution**
  By adopting three 1.3-inch, approximately 790,000-pixels XGA panels, this projector can project sharp picture with the resolutions of 1024 × 768 pixels for RGB input and 750 horizontal TV lines for video input.
- **High picture performance**
  This projector utilizes 3D Digital Gamma correction for good picture uniformity. And the internal RGB enhancer provides sharper RGB images.

Simple setup

- **Sony original high performance APA (Auto Pixel Alignment) function**
  You can get the clearest picture automatically by simply pressing the APA key when the signal is input from a computer.
- **Simple setup with external equipment**
  This projector has 44 kinds of preset data for input signals. You can get a suitable picture by connecting an equipment with supplied cable and pressing the APA key.
- **USB, Digital RGB and 5BNC connectors**
  USB equipment (e.g., USB mouse) allows you to expand your system. Using the application software supplied with the projector allows you to control the projector from your computer operated with Windows1) 98 operating system . The Digital RGB connector allows you to connect the projector to a Digital RGB equipment. The 5BNC input connector allows you to connect the projector to a workstation output high-resolution signals and to connect the projector to a computer from a long distance.

Easy presentation

- **Remote Commander with mouse control and laser pointer functions**
  With the built-in mouse receiver, you can operate a computer with the Remote Commander. For presentations, you can use the laser pointer built into the Remote Commander.
- **Digital ZOOM, FUNCTION and HELP keys on the Remote Commander**
  The Digital ZOOM allows you to enhance your presentation by zoooming in on the image.
  You can allocate a presentation file to the FUNCTION keys by using the application software (CD-ROM) supplied with the projector. Just pressing the FUNCTION key opens the file immediately.
  The HELP key will be helpful if you encounter a problem during operation.
- **High portability**
  This projector is compact-7.2kg (15lb 14oz), portable size. With such a feature, a carrying handle contributes to a convenient carrying, and you can carry it everywhere you want.

Multi scan compatibility

- **Scan converter built-in**
  This projector has a built-in scan converter which converts the input signal within 1024 × 768 pixels.
- **Accept various input signals**
  This projector accepts video signals of the composite, S video, and component as well as the 15k RGB, VGA2), SVGA2), XGA2) and SXGA2) signals, which all can be displayed.
- **Compatible with six color systems**
  NTSC$_{3.58}$, PAL, SECAM, NTSC$_{4.43}$3), PAL-M or PAL-N color system can be selected automatically or manually.

Other functions

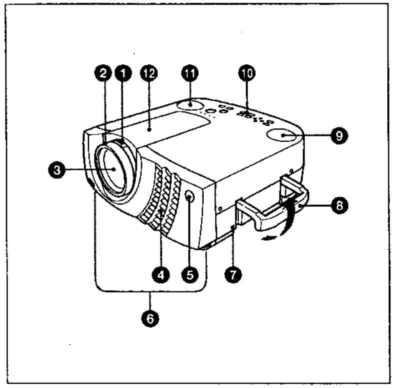
Plug & Play
This projector complies with DDC1 and DDC2B. (DDC1 and DDC2B are the Display Data Channel (DDC™)4) standard in the VESA standard.)
When connecting a DDC1 host system, the projector synchronizes with V.CLK that follows the VESA standard and outputs EDID (Extended Display Identification Data) to the data line.
When connecting a DDC2B host system, the projector automatically switches to the appropriate communication mode.

---

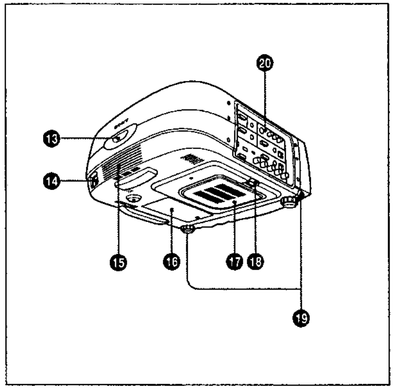
1) Windows is a registered trademark of Microsoft Corporation (U.S.A and other countries).
2) VGA, SVGA, XGA and SXGA are registered trademarks of the International Business Machines Corporation, U.S.A.
3) NTSC$_{4.43}$ is the color system used when playing back a video recorded on NTSC on an NTSC$_{4.43}$ system VCR.
4) DDC™ is a registered trademark of the Video Electronics Standard Association.

Location and Function of Controls

Front/Left Side



Rear/Right Side/Bottom



❶ **Zoom ring**
Adjusts the size of the picture.

❷ **Focus ring**
Adjusts the picture focus.

❸ **Lens**
Open the lens cap before projection.

❹ **Ventilation holes (exhaust)**

❺ **Front remote control detector (SIRCS receiver)**

❻ **Adjuster**
When a picture is projected on the out of the screen, adjust the picture using this adjuster.
For details on how to use the adjusters, see "How to use the adjuster" on page 10 (GB).

❼ **Security lock**
Connects to an optional security cable (Kensington's).

The security lock corresponds to Kensington's MicroSaver Security System.
If you have any comment, contact
Kensington
2853 Campus Drive, San Mates, CA 94403
U.S.A.
Tel: 800-535-4242: extension 3348
Home page address:
http://www.kensington.com/

❽ **Carrying handle**
Pull up the handle from the projector for carrying.

❾ **Left speaker**

❿ **Control panel**
For details, see "Control panel" on page 11 (GB).

⓫ **Right speaker**

⓬ **Lens hood**

⓭ **Rear remote control detector (SIRCS receiver)**

⓮ **AC IN socket**
Connects the supplied AC power cord.

⓯ Rear speaker

⓰ Lamp cover

⓱ Ventilation holes (intake)/air filter cover

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.

⓲ Air filter cover button
Used to remove the air filter cover.
For details, see "Cleaning the Air Filter" on page 33 (GB).

Note

Clean the air filter every 300 hours to ensure optimal performance.

⓳ Adjuster buttons

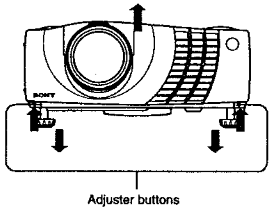
⓴ Connector panel
For details, see page 12 (GB).

How to use the adjuster

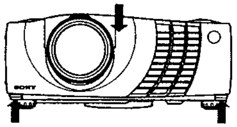
To adjust the height

Adjust the height of the projector as follows:

1. Lift the projector and press the adjuster buttons. The adjusters will extend from the projector.



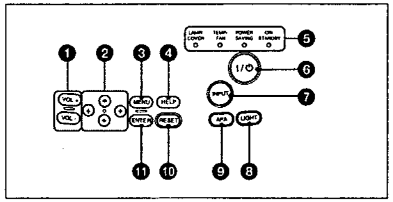
2. While pressing the buttons, lower the projector. Then, release the buttons. For fine adjustment, turn the adjusters to the right and the left.



Notes

- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the adjusters out.

Control panel



❶ VOL +/– keys
Adjust the volume of the built-in speakers and output level of the AUDIO jack.
+ : Increases the volume.
– : Decreases the volume.

❷ Arrow keys (↑/↓/←/→)
Used to select the menu or to make various adjustments.

❸ MENU key
Displays the on-screen menu. Press again to clear the menu.

❹ HELP key
If you need help information during an operation, press this key to display help messages. The Help menu lists error recoveries depending on problem type.

❺ Indicators

LAMP/COVER: Lights up or flashes under the following conditions:
- Lights up when the lamp has reached the end of its life or becomes a high temperature.
- Flashes when the lamp cover or air filter cover is not secured firmly.

TEMP (Temperature)/FAN: Lights up or flashes under the following conditions:
- Lights up when temperature inside the projector becomes unusually high.
- Flashes when the fan is broken.

POWER SAVING: Lights up when the projector is in the power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, any key does not function for the first 40 seconds. The power saving mode is canceled when a signal is input or any key is pressed.

ON/STANDBY: Lights up or flashes under the following conditions:
- Lights in red when the AC power cord is plugged into the wall outlet. Once in the standby mode, you can turn on the projector with the I / ⏻ key.
- Lights in green when the power is turned on.
- Flashes in green while the cooling fan runs after turning off the power with the I / ⏻ key. The fan runs for about 120 seconds after turning off the power.
  The ON/STANDBY indicator flashes quickly for the first 40 seconds.
  During this time, you cannot turn the power back on with the I / ⏻ key.

For details on the LAMP/COVER and the TEMP/FAN indicators, see page 35 (GB).

❻ I / ⏻ (on / standby) key
Turns on and off the projector when the projector is in the standby mode. The ON/STANDBY indicator lights in green when the power is turned on.
When turning off the power, press the I / ⏻ key twice following the message on the screen, or press and hold the key for about one second.
For details on steps for turning off the power, see "To turn off the power" on page 20 (GB).

❼ INPUT key
Selects the input signal. Each time you press the key, the input signal switches as follows:

$$\begin{tikzcd} \text{INPUT-A} \arrow[r] & \text{INPUT-B} \arrow[d] \\ \text{S-VIDEO} \arrow[u] & \text{VIDEO} \arrow[l] \end{tikzcd}$$

The audio signals are common to the VIDEO and S-VIDEO.

❽ LIGHT key
If you press this key while the power is on, the keys on the control panel will be displayed in orange. Press this key to turn off the light.

❾ APA (Auto Pixel Alignment) key
Adjusts a picture to be projected clearest automatically while a signal from the computer is input. Adjust the shift (up/down and left/right) at the same time automatically.

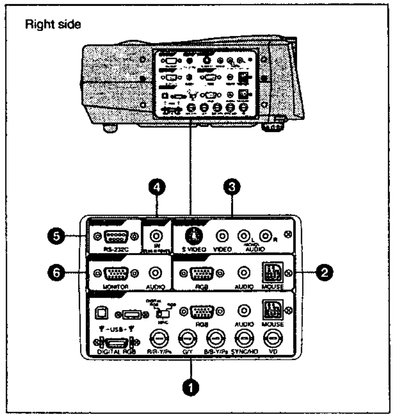
Note

Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.

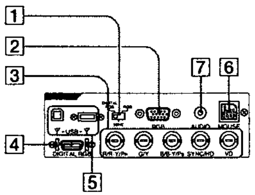
❿ RESET key
Resets the value of an item back to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

⓫ ENTER key
Enters the settings of items in the menu system.

Connector panel



① INPUT A connectors



[1] **DIGITAL RGB/5BNC/RGB switch:** Selects DIGITAL RGB, 5BNC or RGB on INPUT A connectors. Select the appropriate position depending on the input signal.
DIGITAL RGB: Signal input from DIGITAL RGB connector.
5BNC: Signal input from the 5BNC connector.
RGB: Signal input from the RGB connector.

[2] **RGB input connector (HD D-sub 15-pin, female):** Connects to the monitor output on a computer using the supplied cable. This connector only accepts signals from a computer.

[3] **5BNC input connectors (R/R-Y/PR, G/Y, B/B-Y/PB, SYNC/HD, VD connectors) (BNC type):** Connect to a high-resolution computer or VCR where signals are transmitted long distances; for example, when the projector has been hung from the ceiling.
According to the connected equipment, computer, component (R-Y/Y/B-Y), HDTV or DTV (DTV GBR, DTV YPBPR) signal is selected.

[4] **DIGITAL RGB input connector (DFP 20-pin, TMDS):** Connects to a digital RGB output connector on external equipment.

[5] **USB connector:** Connects your computer or USB equipment.
A plug: (Right, for downstream, 4-pin): Connects to USB equipment.
B plug: (Left, for upstream, 4-pin): Connects to a computer. If you connect the projector and a computer, the projector automatically assumes that a USB mouse is connected; this allows you to control the mouse from the Remote Commander. The application software supplied with the projector allows you to control the projector from your computer.

[6] **MOUSE (13-pin) connector:** Connects to the mouse port on a computer to control the mouse function using the supplied mouse cable.

[7] **AUDIO (stereo mini-jack) jack:** Connects to the audio output on a computer.

② INPUT B connectors
Connect to external equipment such as a computer. You can control the mouse signal with the Remote Commander.
RGB input (HD D-sub 15-pin, female): Connects to the monitor output on a computer using the supplied cable. This connector only accepts signals from a computer.
AUDIO (stereo mini-jack): Connects to the audio output on a computer.
MOUSE (13-pin): Connects to the mouse port on a computer to control the mouse function using the supplied mouse cable.

③ VIDEO IN jacks
Connect to external video equipment such as a VCR.
S VIDEO (mini DIN 4-pin): Connects to the S video output (Y/C video output) on video equipment.
VIDEO (phono type): Connects to the composite video output.
AUDIO input L (MONO)/R (phono type): Connect to the audio output of equipment. For stereo equipment, use both the L and R jacks; for monaural equipment, use the L (MONO) jack only.
The audio signals are common to the VIDEO and S VIDEO.

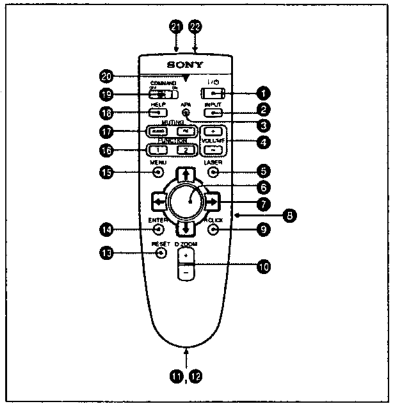
④ CONTROL S IN/PLUG IN POWER (DC 5V output) jack
Connects to the control S out jacks of the Sony equipment. Connects to the CONTROL S OUT jack on the supplied Remote Commander when using it as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.

⑤ RS-232C connector (D-sub 9-pin, female)
Connects to a computer to operate the projector from the computer.

⑥ OUTPUT connectors
MONITOR (HD D-sub 15-pin, female): Connects to the video input connector on the monitor. Outputs signals from the selected channel in the INPUT A (RGB or 5BNC) or INPUT B (RGB) connector. This connector does not output any signals from the DIGITAL RGB connector.
AUDIO (phono type): Connects to external active speakers.
The volume of the speakers can be controlled by the VOLUME +/– keys on the Remote Commander or the VOL +/– keys on the control panel.

Remote Commander

The keys which have the same names as on the control panel function identically.
You can control a connected computer using the Remote Commander.
For details, see "Connecting with a Computer" on page 15 (GB).



Notes on laser beam

- **Do not look into the laser transmitter.**
- **Do not aim the laser at people.**

① I / ⏻ key

② INPUT key

③ APA (Auto Pixel Alignment) key

④ VOLUME +/– keys

⑤ LASER key
Emits laser beam from the laser transmitter when you press this key.

⑥ Joy stick
Functions as a mouse of a computer connected to the unit.

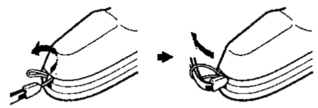
⑦ Arrow keys (↑/↓/←/→)

⑧ L CLICK key
Functions as a left button on a mouse. When connected to a Macintosh[1] computer, the L CLICK key functions as a mouse button.

⑨ R CLICK key
Functions as a right button on a mouse. When connected to a Macintosh computer, the R CLICK key functions as a mouse button.

⑩ D ZOOM +/– key
Enlarges the image at a desired location on the screen.
+: Pressing the + key once displays the icon. This icon indicates the point you want to enlarge. Use an arrow key (↑/↓/←/→) to move the icon to the point to be enlarged. Press the + key repeatedly until the image is enlarged to your requirements.
–: Pressing the – key reduces an image that has been enlarged with the D ZOOM + key.

⑪ Strap holder
Attaches the supplied strap.



⑫ CONTROL S OUT jack (stereo minijack)
Connects to the CONTROL S IN jack on the projector with the connecting cable (not supplied) when using the Remote Commander as a wired one. In this case, you do not need to install the batteries since the power is supplied via the CONTROL S IN jack on the projector.

⑬ RESET key

⑭ ENTER key

⑮ MENU key

⑯ FUNCTION 1/2 keys
When you connect the projector with a computer, you can open a file on the screen by just pressing the FUNCTION key. This will enhance your presentation. To use this function, allocate a file to the FUNCTION key by using the application software. For details on how to allocate a file to the FUNCTION key, refer to the help file of the application software.

---

[1] Macintosh is a registered trademark of Apple Computer, Inc.

⑰ MUTING keys
Cut off the picture and sound.

PIC: Cuts off the picture. Press again to restore the picture.

AUDIO: Cuts off the sound from speakers and AUDIO jack. Press again or press the VOLUME + key to restore the sound.

⑱ HELP key
If you need help information during an operation, press this key to display help messages.

⑲ COMMAND ON/OFF switch
When this switch is set to OFF, no key on the Remote Commander function. This saves the battery power.

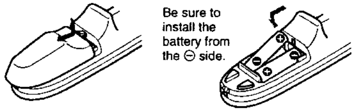
⑳ Transmission indicator
Lights up when you press a key on the Remote Commander.
This indicator does not light up when you use the laser pointer.

㉑ Infrared transmitter

㉒ Laser transmitter

Battery installation

1 Push and slide to open the lid, then install the two size AA (R6) batteries (supplied) with the correct polarity.



2 Replace the lid.

Notes on batteries

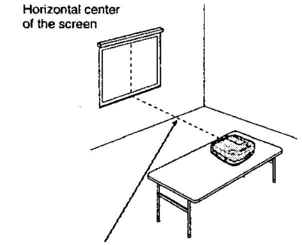
- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix an old battery with a new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on Remote Commander operation

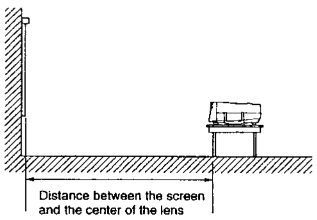
- Make sure that there is nothing to obstruct the infrared beam between the Remote Commander and the remote control detector on the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the commander can control the projector.

Installing the Projector

This section describes the installation arrangements for installing the projector.



The distance between the lens and the screen varies depending on the size of the screen. Use the following table as a guide.



Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150	200	300
Minimum Distance	1.5 (4.9)	2.3 (7.5)	3.1 (10.0)	3.9 (12.6)	4.6 (15.2)	5.8 (19.1)	7.8 (25.5)	11.7 (38.4)
Maximum Distance	1.8 (6.0)	2.8 (9.1)	3.7 (12.3)	4.7 (15.4)	5.7 (18.6)	7.1 (23.3)	9.5 (31.2)	14.3 (46.9)

Connecting

Connecting with a Computer

This section describes how to connect the projector to a computer.
You can control the projector from your computer by using the application software supplied with the projector, and/or you can use USB equipment. For details, see "Using USB equipment (e.g., USB mouse)".

When the projector is connected to a computer, you can control the mouse of a computer by the Remote Commander.
The R/L CLICK keys and joy stick function as follows.

Note

Make sure that there is nothing to obstruct the infrared beam between the Remote Commander and the remoter control detector on the projector.

Key and joy stick	Function	
	IBM PC/AT[1] compatible, Serial	Macintosh
R CLICK (front)	Right button	Mouse button
L CLICK (rear)	Left button	Mouse button
Joy stick	Corresponds with the movements of the mouse	

Also refer to the instruction manual of equipment to be connected.

Notes

- This unit accepts the VGA, SVGA, XGA or SXGA signals. However, we recommend you to set the output signal of your computer to the XGA.
- If you set your computer, such as a notebook type IBM PC/AT compatible, to output the signal to both the display of your computer and the external monitor, the picture of the external monitor may not appear properly. In such cases, set the output mode of your computer to output the signal to only the external monitor.
  For details, refer to the operating instructions supplied with your computer.
- The RGB input connectors of the INPUT A/B and DIGITAL RGB connector of the INPUT A comply with the VESA DDC2B. If your computer or graphics board is compatible with DDC, turn on the power of the equipment as follows:
  1 Connect the projector to the computer with the HD D-sub 15-pin cable.
  2 Turn on the power of the projector.
  3 Boot up the computer.

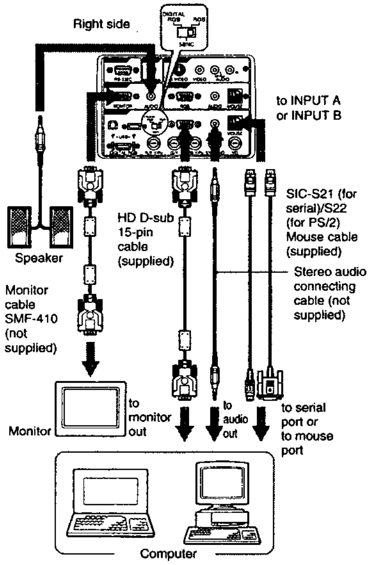
When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Notes

- Connect all the connecting cables to the INPUT A connector when you input a signal from the INPUT A connector.
  Connect all the cables to the INPUT B connector when you input a signal from the INPUT B connector as well.
- Supplied mouse cables may not work properly according to your computer.

When connecting with an IBM PC/AT compatible computer


Right side
DIGITAL RGB
RGB
5BNC
to INPUT A or INPUT B
Speaker
Monitor cable SMF-410 (not supplied)
HD D-sub 15-pin cable (supplied)
SIC-S21 (for serial)/S22 (for PS/2) Mouse cable (supplied)
Stereo audio connecting cable (not supplied)
Monitor
to monitor out
to audio out
to serial port or to mouse port
Computer

Note

Set the DIGITAL RGB/5BNC/RGB switch to RGB (right) when you connect the computer to the INPUT A connector.

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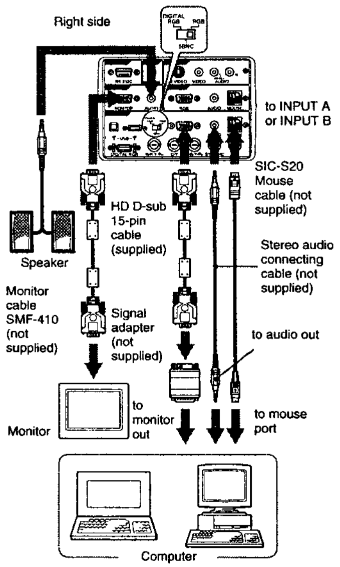
[1] IBM and PC/AT are a trademark and a registered trademark of International Business Machines Corporation, U.S.A.

When connecting with a Macintosh computer

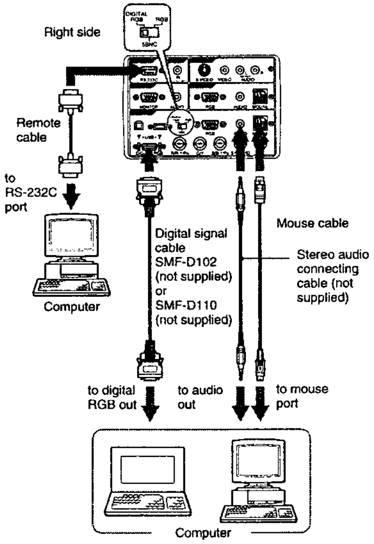

Right side
to INPUT A
or INPUT B
SIC-S20
Mouse
cable (not
supplied)
HD D-sub
15-pin
cable
(supplied)
Stereo audio
connecting
cable (not
supplied)
Speaker
Monitor
cable
SMF-410
(not
supplied)
Signal
adapter
(not
supplied)
to audio out
Monitor
to
monitor
out
to mouse
port
Computer

Notes

- Set the DIGITAL RGB/5BNC/RGB switch to RGB (right) when you connect the computer to the INPUT A connector.
- When you connect with a Macintosh computer, you need the optional signal adapter.

Using the DIGITAL RGB (TMDS) connector

Connect the computer to the DIGITAL RGB (TMDS) connector on the connector panel.


Right side
Remote
cable
to
RS-232C
port
Computer
Digital signal
cable
SMF-D102
(not supplied)
or
SMF-D110
(not supplied)
Mouse cable
Stereo audio
connecting
cable (not
supplied)
to digital
RGB out
to audio
out
to mouse
port
Computer

Notes

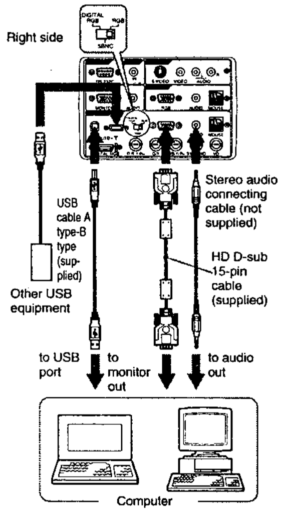
- Use the proper mouse cable for your computer.
- You can use a USB mouse. For details, see "Using USB equipment (e.g., USB mouse)".
- Set the DIGITAL RGB/5BNC/RGB switch to DIGITAL RGB (left).
- To connect digital RGB equipment, use the digital signal cable (SMF-D102 or SMF-D110) (not supplied). Do not use other cables — noise may appear on the image.

Note

If you use the DIGITAL RGB (TMDS) connector, the MONITOR connector will not output image signals.

Using USB equipment (e.g., USB mouse)

Connect the USB equipment to the USB connector on the connector panel.
You can connect your computer to the projector via the RGB connector, 5BNC connector or DIGITAL RGB connector. (The example below uses the RGB connector.)


Right side
USB
cable A
type-B
type
(sup-
plied)
Other USB
equipment
Stereo audio
connecting
cable (not
supplied)
HD D-sub
15-pin
cable
(supplied)
to USB
port
to
monitor
out
to audio
out
Computer

Note

Set the DIGITAL RGB/5BNC/RGB switch to the suitable position depending on the connection.

Notes

- Your computer may not start correctly when it has been connected to the USB connector on the projector via the USB cable. In this case, first disconnect the USB cable, restart the computer, then connect the computer to the projector using the USB cable supplied with the projector.
- The USB connector on this projector will function only with a computer operated with Windows 98.
- When you connect the mouse to your computer via the USB connector, do not connect another mouse to the MOUSE port. The projector automatically assumes that a USB mouse is connected.

USB hub function

If you connect the projector and your computer using the USB cable for the first time, the following devices will be recognized.

1 General purpose USB hub
2 USB human interface device (for wireless mouse function)
3 USB human interface device (for projector control function)

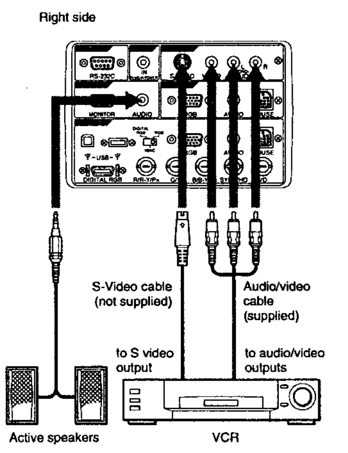
Any other devices connected to the downstream connector of a projector are recognized by your computer.

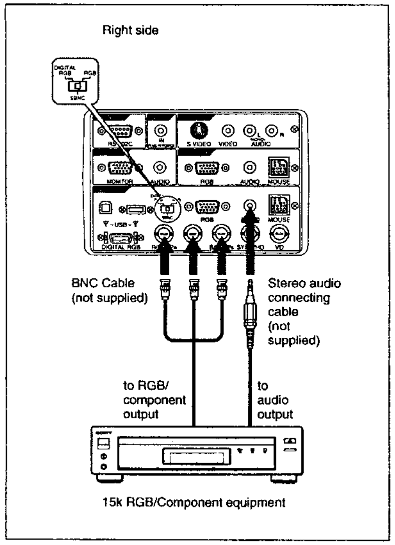
Connecting with a VCR/15k RGB/Component Equipment

This section describes how to connect the projector with a VCR, external active speakers, and 15k RGB/component equipment.
Also refer to the instruction manuals of the equipment to be connected.

When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.


Right side
S-Video cable
(not supplied)
Audio/video
cable
(supplied)
to S video
output
to audio/video
outputs
Active speakers
VCR



15k RGB/Component equipment

Notes

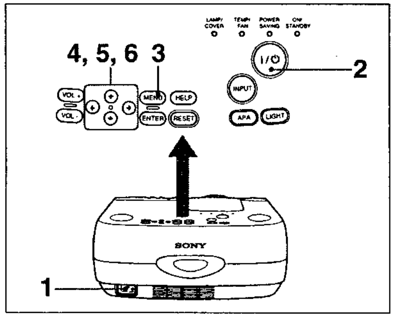
- Set the aspect ratio using ASPECT in the INPUT SETTING menu according to the input signal.
- To connect a 15k RGB/Component equipment, select the COMPUTER/COMPONENT/DTV YPBPR/DTV GBR in the INPUT-A in the SET SETTING menu according to the input signal.
- Use the composite sync signal when you input the external sync signal from 15k RGB/component equipment.

  Connecting to a HDTV 1035/60i

  Since the screen ratio of a high definition image is 16:9 and 576 lines are displayed in the vertical direction, the image displayed is not a high-definition image.

Selecting the Menu Language

You can select the language for displaying in the menu and other on screen displays. The factory setting is ENGLISH.



1 Plug the AC power cord into the wall outlet.

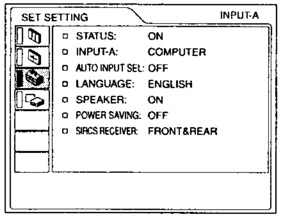
2 Press the I / ⏻ key to turn on the power.

3 Press the MENU key.

The menu display appears.

4 Select the icon of SET SETTING Menu, the third one, with the ⬆ or ⬇ key, then press the ➡ or ENTER key.

The SET SETTING Menu appears.



SET SETTING INPUT-A

- STATUS: ON
- INPUT-A: COMPUTER
- AUTO INPUT SEL: OFF
- LANGUAGE: ENGLISH
- SPEAKER: ON
- POWER SAVING: OFF
- SIRCS RECEIVER: FRONT&REAR

5 Select LANGUAGE with the ⬆ or ⬇ key, then press the ➡ or ENTER key.

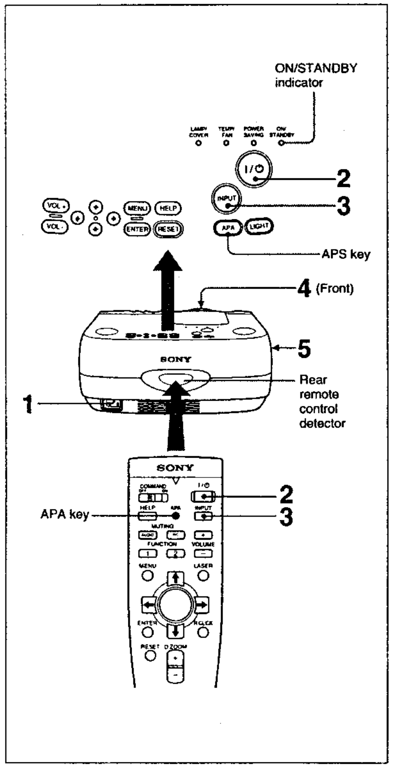
6 Select the language desired with the ⬆ or ⬇ key, then press the ⬅ or ENTER key.

The menu changes into the selected language .

To clear the menu display

Press the MENU key.
The menu display disappears automatically if no key is pressed for one minute.

Projecting



1 After all equipment is connected completely, plug the AC power cord into the wall outlet.

The ON/STANDBY indicator lights in red and the projector goes into the standby mode.

2 Press the I / ⏻ key.

The ON/STANDBY indicator lights in green.

3 Turn on equipment connected to the projector. Press the INPUT key to select the input source.

INPUT-A: Selects audio and video signals input from the INPUT A connector.
INPUT-B: Selects audio and video signals input from the INPUT B connector.
VIDEO: Selects audio and video signals input from the AUDIO/VIDEO (VIDEO IN) jacks.
S-VIDEO: Selects audio and video signals input from the AUDIO/S VIDEO (VIDEO IN) jacks.

Note

The AUDIO (VIDEO IN) jacks are used as audio outputs of both VIDEO and S-VIDEO.

4 Turn the zoom ring to adjust the size of the picture.

5 Turn the focus ring to adjust the focus.

Note

Looking into the lens when projecting may cause injury to your eyes.

To	Press
Adjust the volume	the VOL +/– keys on the control panel or the VOLUME +/– keys on the Remoter Commander.
Cut off the sound	the AUDIO MUTING key on the Remote Commander. To restore the sound, press the AUDIO MUTING key again or press the VOL + key on the control panel or the VOLUME + key on the Remote Commander.
Cut off the picture	the PIC MUTING key on the Remote Commander. To restore the picture, press the PIC MUTING key again.

To get the clearest picture

You can get the suitable picture when a signal from the computer is input. Press the APA key.
The picture is automatically adjusted to be projected clearest.

Notes

- Adjust the signal when the still picture is displayed on the screen.
- Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- If you switch the input signal or re-connect a computer, press the APA key again to get the suitable picture.

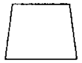
- "ADJUSTING" appears on the screen. Press the APA key again during the adjustment to restore the original screen.
- "Complete!" appears on the screen when the picture is adjusted properly. The picture may not be adjusted properly depending on the kinds of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually.
  For details, see page 24 (GB).

To correct the trapezoid

When the projecting image is a trapezoid, change the projector's position/height by moving the adjuster.
For details on "How to use the adjuster", see page 10 (GB).

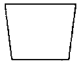
If the image is still a trapezoid, correct it in DIGIT KEYSTONE in the INSTALL SETTING menu.

When the base edge is longer than the upper edge as shown in the figure below:



Set the value to negative.

When the upper edge is longer than the base edge as shown in the figure below:



Set the value to positive.

For details on "DIGIT KEYSTONE", see page 27 (GB).

To turn off the power

1 Press the I / ⏻ key.

"Power OFF?" appears on the screen.

Note

The message will disappear if you press any key except the I / ⏻ key, or if you do not press any key for five seconds.

2 Press the I / ⏻ key.

The ON/STANDBY indicator flashes in green and the fan continues to run for about 120 seconds to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly for the first 40 seconds. During this time, you will not be able to turn the power back on with the I / ⏻ key.

3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

When you cannot confirm the on-screen message

When you cannot confirm the on-screen message in a certain condition, you can turn off the power by holding the I / ⏻ key for about one second.

Note

Do not unplug the AC power cord while the fan is still running; otherwise, the fan will stop although the internal heat is still high, leading to breakdown of the projector.

About the air filter cleaning

Clean the air filter every 300 hours to ensure optimal performance.

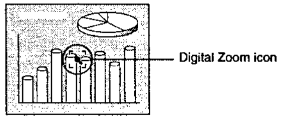
Effective tools for your presentation

To enlarge the image (Digital Zoom function)

You can select a point in the image to enlarge.

1 Press the D ZOOM + key on the Remote Commander.

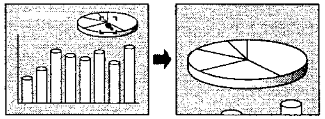
The Digital Zoom icon appears at the center of the image.



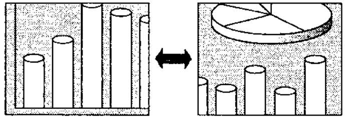
2 Move the icon to the point on the image you want to enlarge. Use the arrow keys (↑/↓/←/→) to move the icon.

3 Press the D ZOOM + key again.

The image where the icon is located is enlarged. By pressing the + key repeatedly, the image size increases. (ratio of enlargement: max. 4 times)



Use the arrow keys(↑/↓/←/→) to scroll the enlarged image.



To return the image back to its original size

Press the D ZOOM – key on the Remote Commander.

To use the Laser Pointer function

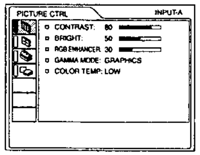
Press the LASER key on the Remote Commander. The laser pointer appears. The pointer is helpful in indicating a particular point on the screen.

Using the MENU

The projector is equipped with an on-screen menu for making various adjustments and settings.

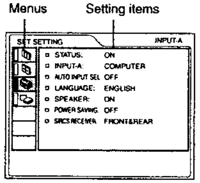
To select the language used in the menu, see page 26 (GB).

1 Press the MENU key.
The menu display appears.
The bar on the icon of the currently selected menu is highlighted in yellow.



PICTURE CTRL INPUT-A
- CONTRAST: 80
- BRIGHT: 50
- RGB ENHANCER: 30
- GAMMA MODE: GRAPHICS
- COLOR TEMP: LOW

2 Use the ⬆ or ⬇ key to select a menu, then press the ➡ or ENTER key.
The selected menu appears.



SET SETTING INPUT-A
- STATUS: ON
- INPUT-A: COMPUTER
- AUTO INPUT SEL: OFF
- LANGUAGE: ENGLISH
- SPEAKER: ON
- POWER SAVING: OFF
- SIRCS RECEIVER: FRONT&REAR

3 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To clear the menu display

Press the MENU key.
The menu display disappears automatically if no key is pressed for one minute.

To reset items that have been adjusted

Press the RESET key.
"Complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.
Items which can be reset are:
- "CONTRAST", "BRIGHT", "COLOR", "HUE", "SHARP" and "RGB ENHANCER" in the PICTURE CTRL menu.
- "DOT PHASE", "SIZE H" and "SHIFT" in the INPUT SETTING menu.

About the memory of the settings

The settings are automatically stored in the projector memory.

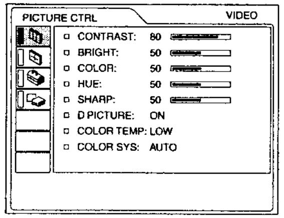
When no signal is input

When there is no input signal, "NO INPUT–Cannot adjust this item." appears on the screen, and each item cannot be adjusted.

The PICTURE CTRL Menu

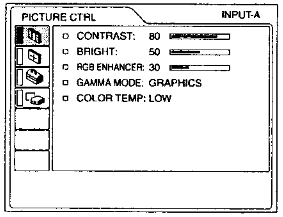
The PICTURE CTRL (control) menu is used for adjusting the picture.
Unadjustable items depending on the input signal are not displayed in the menu.

When the video signal is input



PICTURE CTRL VIDEO
- CONTRAST: 80
- BRIGHT: 50
- COLOR: 50
- HUE: 50
- SHARP: 50
- D PICTURE: ON
- COLOR TEMP: LOW
- COLOR SYS: AUTO

When the RGB signal is input



PICTURE CTRL INPUT-A
- CONTRAST: 80
- BRIGHT: 50
- RGB ENHANCER: 30
- GAMMA MODE: GRAPHICS
- COLOR TEMP: LOW

Operation

1. Select an item

Use the ⬆ or ⬇ key to select the item, then press the ➡ or ENTER key.

2. Adjust an item

- When changing the adjustment level:
  To increase the number, press the ⬆ or ➡ key.
  To decrease the number, press the ⬇ or ⬅ key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ⬆ or ⬇ key to change the setting.
  Press the ENTER or ⬅ key to restore the original screen.

CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts color tones.
The higher the setting, the picture becomes greenish.
The lower the setting, the picture becomes purplish.

SHARP

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

RGB ENHANCER

Adjusts the picture sharpness when the RGB signals are input.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.
ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

GAMMA MODE

Selects a gamma correction curve.
GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images that contain lots of text.

COLOR TEMP

Adjusts the color temperature.
HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (System)

Selects the color system of the input signal.
AUTO: Automatically selects one of the following signals: NTSC$_{3.58}$, PAL, SECAM, NTSC$_{4.43}$.
PAL-M/N: Automatically selects one of the following signals: PAL-M/PAL-N, NTSC$_{3.58}$.
Normally, set to AUTO.
If the picture is distorted or colorless, select the color system according to the input signal.

Input signals and adjustable/setting items

Item	Input signal				
	Video or S video (Y/C)	Component	HDTV	RGB[1]	B&W
CONTRAST	●	●	●	●	●
BRIGHT	●	●	●	●	●
COLOR	●	●	●	–	–
HUE	● (NTSC3.58/ 4.43 only)	●	●	–	–
SHARP	●	●	●	–	●
RGB ENHANCER	–	–	–	●	–
D. PICTURE	●	● (15k 60/50 only)	–	–	●
GAMMA MODE	–	–	–	●	–
COLOR TEMP	●	●	●	●	●
COLOR SYS	●	–	–	–	●

● : Adjustable/can be set
– : Not adjustable/can not be set

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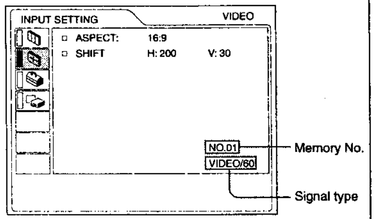
[1] The RGB signals of a computer

The INPUT SETTING Menu

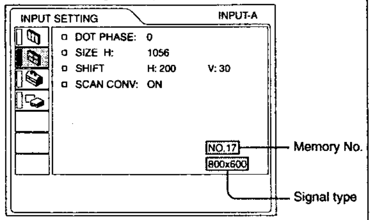
The INPUT SETTING menu is used to adjust the input signal.
Unadjustable items depending on the input signal are not displayed in the menu.

When the video signal is input



ASPECT: 16:9
SHIFT H: 200 V: 30
NO.01
VIDEO/60

When the RGB signal is input



DOT PHASE: 0
SIZE H: 1056
SHIFT H: 200 V: 30
SCAN CONV: ON
NO.17
800x600

Operation

1. Select an item

Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Adjust an item

- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

DOT PHASE

Adjusts the dot phase of the LCD panel and the signal input from the INPUT A/B connector. Adjust the picture further for finer picture after the picture is adjusted with pressing the APA key.
Adjust the picture to where it looks clearest.

SIZE H

Adjusts the horizontal size of picture input from the INPUT A/B connector.
The higher the setting, the larger the horizontal size of the picture.
The lower the setting, the smaller the horizontal size of the picture. Adjust the setting according to the dots of the input signal. For details on the suitable value for the preset signals, see page 25 (GB).

SHIFT

Adjusts the position of the picture input from the INPUT A/B connectors or VIDEO IN jacks.
H adjusts the horizontal position of the picture.
V adjusts the vertical position of the picture.
As the setting for H increases, the picture moves to the right, and as the setting decreases, the picture moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, the picture moves down.
Use the ← or the → key to adjust the horizontal position and the ↑ and ↓ key for the vertical position.

ASPECT

Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.

4:3 : When the picture with ratio 4:3 is input.
16:9 : When the picture with ratio 16:9 (squeezed) is input.

SCAN CONV (Scan converter)

Converts the signal to display the picture according to the screen size.

ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

When the XGA or SXGA signal is input, this item will not be displayed.

Input signals and adjustable/setting items

Item	Input signal				
	Video or S video (Y/C)	15k RGB/ Component	HDTV	RGB[1]	B&W
DOT PHASE	–	–	●	●	–
SIZE H	–	–	●	●	–
SHIFT	●	●	●	●	●
ASPECT	●	●	–	–	●
SCAN CONV	–	–	–	● (lower than SVGA only)	–

● : Adjustable/can be set
– : Not adjustable/can not be set

About the preset memory No.

This projector has 44 kinds of preset data for input signals (the preset memory). The memory number of the current input signal and the signal type are displayed when the preset signal is input. This projector automatically detects the signal type. When the signal is registered to the preset memory, a suitable picture is displayed on the screen according to the signal type. You can adjust the picture through the INPUT SETTING menu.
This projector also has 20 kinds of user memories for each INPUT-A/B. When an unpreset signal is input for the first time, memory number is displayed as 0. If the input signal is adjusted in the INPUT SETTING menu, the setting via INPUT-A/B is stored. When more than 20 user memories are registered for each INPUT-A/B, the newest memory is automatically stored over the oldest one.

Preset signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE H
1	Video 60 Hz		15.734	59.940	H-neg V-neg	
2	Video 50 Hz		15.625	50.000	H-neg V-neg	
3	15k RGB/Component 60 Hz		15.734	59.940	H-neg V-neg	
4	15k RGB/Component 50 Hz		15.625	50.000	H-neg V-neg	
5	HDTV		33.750	60.000	H-neg V-neg	
6	640 x 350	VGA mode 1	31.469	70.086	H-pos V-neg	800
7		VGA VESA[2] 85 Hz	37.861	85.080	H-pos V-neg	832
8	640 x 400	PC-9801[3] Normal	24.823	56.416	H-neg V-neg	848
9		VGA mode 2	31.469	70.086	H-neg V-pos	800
10		VGA VESA 85 Hz	37.861	85.080	H-neg V-pos	832
11	640 x 480	VGA mode 3	31.469	59.940	H-neg V-neg	800
12		Macintosh 13"	35.000	66.667	H-neg V-neg	864
13		VGA VESA 72 Hz	37.861	72.809	H-neg V-neg	832
14		VGA VESA 75 Hz	37.500	75.000	H-neg V-neg	840
15		VGA VESA 85 Hz	43.269	85.008	H-neg V-neg	832
16	800 x 600	SVGA VESA 56 Hz	35.156	56.250	H-pos V-pos	1024
17		SVGA VESA 60 Hz	37.879	60.317	H-pos V-pos	1056
18		SVGA VESA 72 Hz	48.077	72.188	H-pos V-pos	1040
19		SVGA VESA 75 Hz	46.875	75.000	H-pos V-pos	1056
20		SVGA VESA 85 Hz	53.674	85.061	H-pos V-pos	1048
21	832 x 624	Macintosh 16"	49.724	74.550	H-neg V-neg	1152
22	1024 x 768	XGA VESA 43 Hz	35.524	43.479	H-pos V-pos	1264
23		XGA VESA 60 Hz	48.363	60.004	H-neg V-neg	1344
24		XGA VESA 70 Hz	56.476	69.955	H-neg V-neg	1328
25		XGA VESA 75 Hz	60.023	75.029	H-pos V-pos	1312
26		XGA VESA 85 Hz	68.677	84.997	H-pos V-pos	1376
27	1152 x 864	SXGA VESA 70 Hz	63.995	70.016	H-pos V-pos	1472
28		SXGA VESA 75 Hz	67.500	75.000	H-pos V-pos	1600
29		SXGA VESA 85 Hz	77.487	85.057	H-pos V-pos	1568
30	1152 x 900	Sunmicro LO	61.795	65.960	H-neg V-neg	1504
31		Sunmicro HI	71.713	76.047	H-neg V-neg	1472
32	1280 x 960	SXGA VESA 60 Hz	60.000	60.000	H-pos V-pos	1800
33		SXGA VESA 75 Hz	75.000	75.000	H-pos V-pos	1728
34	1280 x 1024	SXGA VESA 43 Hz	46.433	43.436	H-pos V-pos	1696
35		SGI-5	53.316	50.062	H-neg V-neg	1680
36		SXGA VESA 60 Hz	63.974	60.013	H-pos V-pos	1696
37		SXGA VESA 75 Hz	79.976	75.025	H-pos V-pos	1688
38		SXGA VESA 85 Hz	91.146	85.024	H-pos V-pos	1728

43	PC Component 480/60P	480/60P (Double frequency NTSC)	31.470	60.000	SonG	
44	575/50P	575/50P (Double frequency PAL)	31.250	50.000	SonG	
45	1080/50I	1080/50I	28.130	50.000		
46	1080& 1152/60	1080/50I-2	31.250	50.000		
47	720/60P	720/60P	45.000	60.000		
48	720/50P	720/50P	37.500	50.000		

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1) The RGB signals of a computer
2) VESA is a registered trademark of Video Electronics Standard Association.
3) PC-98 is a registered trademark of NEC Corporation.

Since the data is recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE H. Make fine adjustment by adjusting SHIFT.

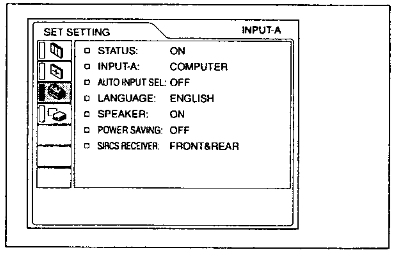
Signal	Memory No.	SIZE H
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328
Macintosh 21"	28	1456
Sony News	36	1708
PC-9821 1280 × 1024	36	1600
WS Sunmicro	37	1664

Note

When the aspect ratio of input signal is other than 4:3, a part of the screen is displayed in black.

The SET SETTING Menu

The SET SETTING menu is used for changing the settings of the projector.



SET SETTING INPUT-A

- STATUS: ON
- INPUT-A: COMPUTER
- AUTO INPUT SEL: OFF
- LANGUAGE: ENGLISH
- SPEAKER: ON
- POWER SAVING: OFF
- SIRCS RECEIVER: FRONT&REAR

Operation

1. Select an item

Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Change the setting

Press the ↑ or ↓ key to change the setting.

To restore the original screen, press the ENTER or ← key.

STATUS (on-screen display)

Sets up the on-screen display.

ON: Shows all of the on-screen displays.

OFF: Turns off the on-screen displays except for the menus, a message when turning off the power, and warning messages.

For details on the warning messages, see page 35 (GB).

INPUT-A

Selects the computer, component, DTV YPBPR or DTV GBR signal input from the 5BNC connector.

Note

If the setting is not correct, "Please check INPUT-A setting." appears on the screen and the color of the picture becomes strange or the picture is not displayed.

AUTO INPUT SEL

When set to ON, the projector detects input signals in the following order: INPUT-A/INPUT-B/VIDEO/S-VIDEO. It indicates the input channel when the power is turned on or the INPUT key is pressed.

LANGUAGE

Selects the language used in the menu and on-screen displays.

Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

SPEAKER

Set to OFF to cut off the sound of the internal speakers. When set to OFF, "SPEAKER OFF" appears on the screen when you turn on the power.

POWER SAVING

When set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes.

SIRCS RECEIVER

Selects the remote control detectors (SIRCS receiver) on the front and rear of the projector.

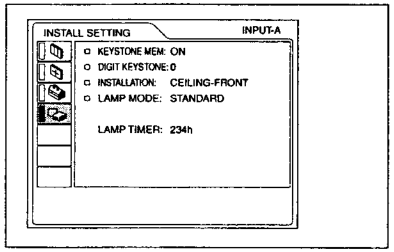
FRONT & REAR: Activates both the front and rear detectors.

FRONT: Activates the front detector only.

REAR: Activates the rear detector only.

The INSTALL SETTING Menu

The INSTALL SETTING menu is used for changing the settings of the projector.



INSTALL SETTING INPUT-A

- KEYSTONE MEM: ON
- DIGIT KEYSTONE: 0
- INSTALLATION: CEILING-FRONT
- LAMP MODE: STANDARD

LAMP TIMER: 234h

Operation

1. Select an item

Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Adjust an item

- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

KEYSTONE MEM

ON: DIGIT KEYSTONE setting is stored.
The data is retrieved when the projector power is turned on. The setting will remain the same every time.

OFF: DIGIT KEYSTONE is reset to 0 when the power is turned on next time.

DIGIT KEYSTONE

Corrects the trapezoid caused by the projection angle. If the base edge is longer, set a negative value; if the upper edge is longer, set a positive value to square the image.

INSTALLATION

Sets to reverse the picture horizontally or vertically.

FLOOR-FRONT: The picture is not reversed.

CEILING-FRONT: The picture is reversed horizontally and vertically.

FLOOR-REAR: The picture is reversed horizontally.

CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

LAMP MODE

Sets the lamp brightness in the projection.

STANDARD: Illuminates with normal brightness.

LOW: Reduces fan noise and power consumption.

Compared with the STANDARD setting, the brightness of an image projecting under the LOW setting will be low.

LAMP TIMER

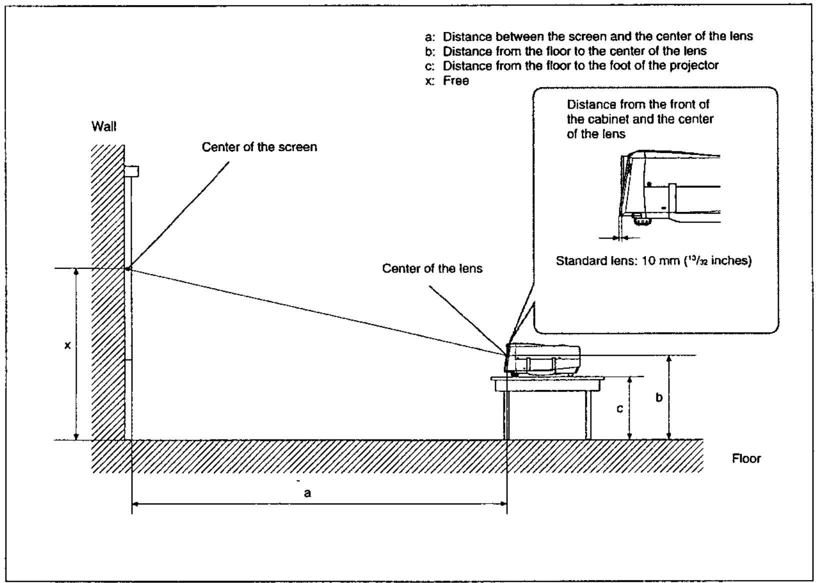
Indicates how long the lamp has been turned on.

Note

This only displays the time. You cannot alter the display.

Installation Examples

Floor Installation


a: Distance between the screen and the center of the lens
b: Distance from the floor to the center of the lens
c: Distance from the floor to the foot of the projector
x: Free
Distance from the front of the cabinet and the center of the lens
Standard lens: 10 mm (13/32 inches)
Wall
Center of the screen
Center of the lens
x
c
b
Floor
a

Unit: mm (inches)

Screen size (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	1490 (58 3/4)	2280 (89 7/8)	3060 (120 1/2)	3850 (151 5/8)	4630 (182 3/8)	5810 (228 7/8)	6990 (275 1/4)	7770 (306)	9740 (383 5/8)	11700 (460 3/4)
	Maximum	1820 (71 3/4)	2780 (109 1/2)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)
b		x–305 (12)	x–457 (18)	x–610 (24)	x–762 (30)	x–914 (36)	x–1143 (45)	x–1372 (54)	x–1524 (60)	x–1905 (75 1/8)	x–2286 (90 1/8)
c		x–394 (15 5/8)	x–546 (21 5/8)	x–699 (27 5/8)	x–851 (33 5/8)	x–1003 (39 5/8)	x–1232 (48 5/8)	x–1461 (57 5/8)	x–1613 (63 5/8)	x–1994 (78 5/8)	x–2375 (93 5/8)

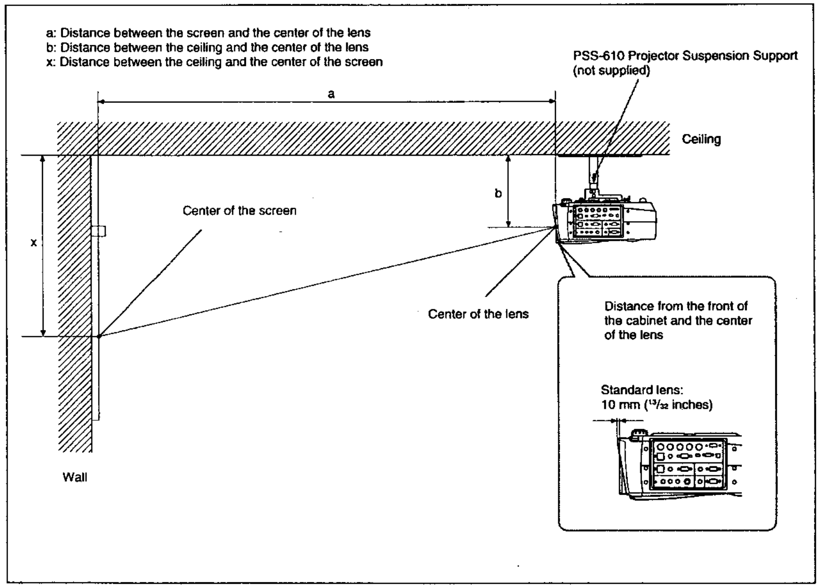
To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)
a (minimum) = $\{(SS \times 50.18/1.3102) - 75.10104\} \times 1.025$
a (maximum) = $\{(SS \times 64.518746/1.3102) - 107.8977\} \times 0.975$
b = $x - (SS/1.3102 \times 9.984)$
c = $x - (SS/1.3102 \times 9.984 + 89)$

Ceiling Installation

When installing the projector on the ceiling, use the PSS-610 Projector Suspension Support.

For ceiling installation, consult with qualified Sony personnel.


a: Distance between the screen and the center of the lens
b: Distance between the ceiling and the center of the lens
x: Distance between the ceiling and the center of the screen
PSS-610 Projector Suspension Support (not supplied)
a
Ceiling
b
x
Center of the screen
Center of the lens
Distance from the front of the cabinet and the center of the lens
Standard lens: 10 mm (13/32 inches)
Wall

Unit: mm (inches)

Screen size (inches)		80	100	120	150	180	200	250	300
a	Minimum	3060 (120 1/2)	3850 (151 5/8)	4630 (182 3/8)	5810 (228 7/8)	6990 (275 1/4)	7770 (306)	9740 (383 5/8)	11700 (460 3/4)
	Maximum	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)
x		b+610 (24)	b+762 (30)	b+914 (36)	b+1143 (45)	b+1372 (54)	b+1524 (60)	b+1905 (75 1/8)	b+2286 (90 1/8)
b		231/256/281/331/356/381 mm (9 1/8/10 1/8/11 1/8/13 1/8/14 1/8/15 inches) adjustable when using PSS-610							

To calculate the installation measurement (unit: mm)

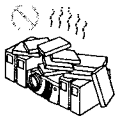
SS: screen size diagonal (inches)
a (minimum) = $\{(SS \times 50.18/1.3102) - 75.10104\} \times 1.025$
a (maximum) = $\{(SS \times 64.518746/1.3102) - 107.8977\} \times 0.975$
x = $b + (SS/1.3102 \times 9.984)$

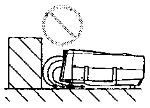
Tips for Installation

Unsuitable Installation

Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

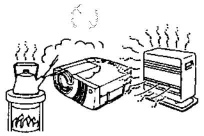
Poorly ventilated





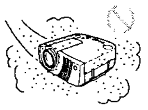
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. When the internal heat builds up due to the block-up, the temperature sensor will function with the message "High temp.! Lamp off in 1 min." The power will be turned off automatically after one minute.
- Leave space of more than 30 cm (11 7/8 inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.
- If you put something in front of the front ventilation holes, the exhaust may be inhaled into the projector through the ventilation holes at the bottom, causing the internal temperature to rise, which activates the protection circuit. Install the projector so that the exhaust is not blocked.

Highly heated and humid



- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

Very dusty

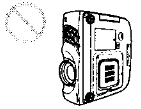


Avoid installing the unit in a location where there is a lot of dust; otherwise, the air filter will be obstructed. The dust blocking the air through the filter may cause raising the internal heat of the projector. Clean it up periodically.

Notes on Installation

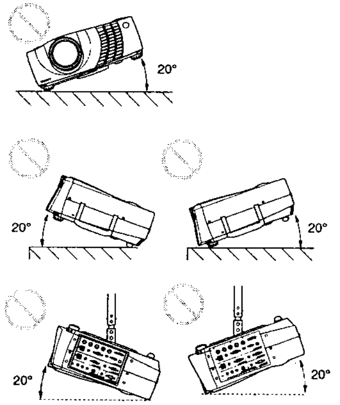
Carry out the followings.

No toppling of the unit



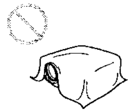
Avoid using as the unit topples over on its side. It may cause malfunction.

Use to be level



Avoid using as the unit tilts more than 20 degrees. Do not install the unit other than on the floor or ceiling. These installation may cause malfunction.

No blocking the ventilation holes



Avoid using something to cover over the ventilation holes; otherwise, the internal heat may build up.

Maintenance

Replacing the Lamp

When it is time to replace the lamp, replace the lamp promptly with a new LMP-P200 Projector Lamp. The lamp reaches the end of its life after about 1000 hours for the STANDARD setting, or about 2000 hours for the LOW setting in the LAMP MODE.

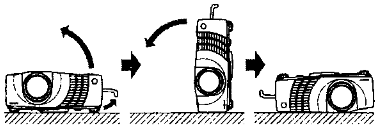
When replacing the lamp after using the projector

Turn off the projector, then unplug the power cord. Wait for at least an hour for the lamp to cool.

Note

The lamp becomes a high temperature after turning off the projector with the I / ⏻ key. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

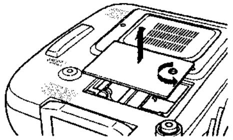
1 Place a protective sheet (cloth) beneath the projector.
Hold the projector handle and turn the projector toward the control panel as shown below.



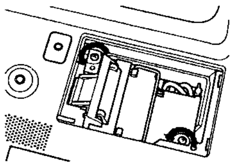
Note

When replacing the lamp, be sure it is on a flat and stable surface.

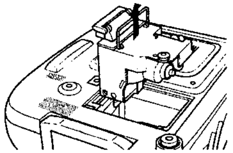
2 Open the lamp cover by loosening one screw with the Philips screwdriver (supplied with the LMP-P200 Projector Lamp).



3 Loosen two screws on the lamp unit with the Philips screwdriver.



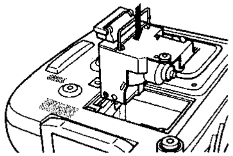
4 While holding the handle and keeping the lamp unit horizontal, pull straight up.



Notes

- Pull out the lamp unit by holding the handle. If you touch the lamp unit, you may be burned or injured.
- When removing the lamp unit, make sure it remains horizontal, then pull straight up. Do not tilt the lamp unit. If you pull out the lamp unit while tilted and if the lamp breaks, the pieces may scatter, causing injury.
- If the lamp breaks, consult with qualified Sony personnel.

5 Insert the new lamp all the way in until it is securely in place. Tighten the screws. Fold down the handle.



Notes

- Be careful not to touch the glass surface of the lamp.
- The power will not turn on if the lamp is not secured properly.

6 Close the lamp cover and tighten the screw.

7 Turn the projector back over.

8 Connect the power cord and turn the projector to the standby mode.

9 Press the following keys on the control panel in the following order for less than in five seconds each: RESET, ←, →, ENTER.

Notes

- Be sure to use the LMP-P200 Projector Lamp for replacement. If you use lamps other than LMP-P200, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.
- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.

Disposal of used projector lamp

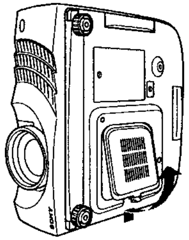
As the materials used in this lamp are similar to those of a fluorescent lamp, you should dispose of a used projector lamp in the same way as a fluorescent lamp.

Cleaning the Air Filter

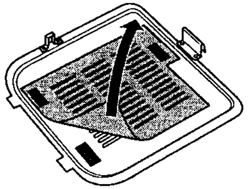
The air filter should be cleaned every 300 hours.
When it becomes difficult to remove the dust from the filter, replace the filter with a new one.
To clean the air filter, follow the steps below:

1 Turn off the power and unplug the power cord.

2 Remove the air filter cover while holding down the air filter cover button on the filter cover.

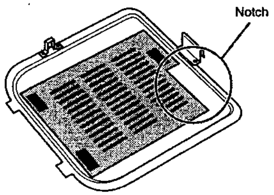


3 Peel off the air filter. (The air filter is secured with Velcro tape (3).)



4 Remove the dust from the filter with a vacuum cleaner.

5 Install the air filter as shown in the figure. Install the air filter cover on the projector.



Notes

- Just placing the air filter on the Velcro tapes will not lock the air filter in place. When installing the air filter, place it on the air filter cover and attach by pressing down hard on the three Velcro tapes. Make sure that the air filter is not bent.
- Set the air filter correctly (straight) in the air filter cover. If the air filter is not straight, the filter may malfunction.
- If the air filter is excessively dirty, wash it with a mild detergent solution and dry it in a shaded place. If the dust cannot be removed, replace the air filter with the supplied new one.
- The air filter has front and back sides. Make sure you install the air filter in the right direction. Check the notch on the filter as shown in the figure above and install properly.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.

Troubleshooting

If you encounter a problem during operation, press the HELP key to display the help messages.

You can get these kinds of help messages:
- Image: A menu is not displayed. Colors are not correct.
- Sound: Sound is not output correctly.
- Other: The indicator lights up/flashes.

If you still have a problem after consulting the help messages, please check the following. If the problem persists, contact your Sony dealer.

Power

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the I / ⏻ key at a short interval.	Wait for about 120 seconds before turning on the power *(see page 19 (GB)).*
	The lamp cover is detached.	Close the lamp cover securely *(see page 32 (GB)).*
	The air filter cover is detached.	Close the air filter cover securely *(see page 33 (GB)).*

Image

Symptom	Cause	Remedy
No picture.	Cable is disconnected or not connected properly.	Check that the proper connections have been made *(see pages 15 (GB) to 18 (GB)).*
	Input selection is incorrect.	Select the input source correctly using the INPUT key *(see page 19 (GB)).*
	The picture is cut off.	Press the PIC MUTING key to release the muting function *(see page 19 (GB)).*
	The computer signal is not set to output to external monitor.	Set the computer signal to output to external monitor *(see page 15 (GB)).*
	The computer signal is set to output to both the LCD of the computer and external monitor.	Set the computer signal to output only to external monitor *(see page 15 (GB)).*
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
On-screen display does not appear.	STATUS in the SET SETTING menu has been set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 26 (GB)).*

Sound

Symptom	Cause	Remedy
No Sound.	Cable is disconnected or not connected properly.	Check that the proper connections have been made *(see pages 15 (GB) to 18 (GB)).*
	The sound is cut off.	Press the AUDIO MUTING key to release the muting function *(see page 19 (GB)).*
When inputting sound through AUDIO jack, sound comes through one channel only.	Monaural sound is being input through the AUDIO jack.	Input stereo sound.

Others

Symptom	Cause	Remedy
The LAMP/COVER indicator flashes.	The lamp cover or the air filter cover is detached.	Attach the cover securely *(see pages 32 (GB) and 33 (GB)).*
The LAMP/COVER indicator lights up.	The lamp has reached the end of its life.	Replace the lamp *(see page 32 (GB)).*
	The lamp becomes a high temperature.	Wait for 120 seconds to cool down the lamp and turn on the power again *(see page 19 (GB)).*
The TEMP/FAN indicator flashes.	The fan is broken.	Consult with qualified Sony personnel.
The TEMP/FAN indicator lights up.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
Both LAMP/COVER and TEMP/FAN indicators light up.	The electric system failed.	Consult with qualified Sony personnel.

Warning messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High temp.! Lamp off in 1 min.	Internal temperature is too high.	Turn off the power. Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	This input signal cannot be projected as the frequency is out of the acceptable range of the projector.	Input a signal that is within the range of the frequency.
	The resolution setting of the output signal of a computer is too high.	Set the setting of output to the XGA *(see page 15 (GB)).*
Please check INPUT-A setting.	You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT, DTV YPBPR or DTV GBR.	Set INPUT-A correctly *(see page 26 (GB)).*

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
NO INPUT	No input signal	Check connections *(see page 15 (GB) to 18 (GB)).*
Not applicable!	You have pressed the wrong key.	Press the appropriate key.
SPEAKER OFF	SPEAKER in the SET SETTING menu has been set to OFF.	Set SPEAKER to ON if necessary *(see page 26 (GB)).*

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, projection system
LCD panel	VPL-PX20: 1.3-inch TFT SONY LCD panel
	VPL-PX30: 1.3-inch TFT SONY LCD panel with micro-lens array, 2,359,296 pixels (786,432 pixels × 3)
Lens	Approx. 1.3 times zoom lens f 36.7 to 47.8 mm/F 1.7 to 2.0
Lamp	200 W UHP
Projection picture size	Range: 40 to 300 inches (diagonal measure)
Light output	VPL-PX20: ANSI lumen[1] 1400 lm
	VPL-PX30: ANSI lumen[1] 2400 lm
Throwing distance	40-inch: 1490 to 1820 mm (58 3/4 to 71 3/4 inches)
	60-inch: 2280 to 2780 mm (89 7/8 to 109 1/2 inches)
	80-inch: 3060 to 3740 mm (120 1/2 to 147 3/8 inches)
	100-inch: 3850 to 4700 mm (151 5/8 to 185 1/8 inches)
	120-inch: 4630 to 5660 mm (182 3/8 to 222 7/8 inches)
	150-inch: 5810 to 7100 mm (228 7/8 to 279 5/8 inches)
	180-inch: 6990 to 8540 mm (275 1/4 to 336 3/8 inches)
	200-inch: 7770 to 9500 mm (306 to 374 1/8 inches)
	250-inch: 9740 to 11900 mm (383 5/8 to 468 5/8 inches)
	300-inch: 11700 to 14300 mm (460 3/4 to 563 1/8 inches)

Electrical characteristics

Color system	NTSC$_{3.58}$/PAL/SECAM/NTSC$_{4.43}$/PAL-M/PAL-N system, switched automatically/manually
Resolution	750 horizontal TV lines (Video input)
	1024 × 768 pixels (RGB input)
Acceptable computer signals	fH: 15 to 91 kHz
	fV: 43 to 85 Hz
Speaker	Wide frequency range 3 speakers system, Woofer: 65 mm (2 5/8 inches) diameter, max. 3 W Tweeter: 45 mm (1 3/16 inches) diameter, max. 1 W × 2 (stereo)

Input/Output

Video/audio input	VIDEO: phono type
	Composite video: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
	S VIDEO: Y/C mini DIN 4-pin type (male)
	Y (luminance): 1 Vp-p ±2 dB sync negative (75 ohms terminated)
	C (chrominance): burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), burst 0.3 Vp-p ±2 dB (PAL) (75 ohms terminated)
	AUDIO: Phono type × 2
	500 mVrms, impedance more than 47 kilohms
INPUT A	HD D-sub15-pin (female)/ 5BNC (female)/ Digital Interface Switched
	Analog RGB:HD D-sub15-pin (female)
	R: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G with sync: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
	B: 0.7 Vp-p ±2 dB (75 ohms terminated)
	SYNC/HD:
	Composite sync input: 1-5 Vp-p high impedance, positive/ negative
	Horizontal sync input: 1-5 Vp-p high impedance, positive/ negative
	VD:
	Vertical sync input: 1-5 Vp-p high impedance, positive/ negative
	Analog RGB/component: 5BNC (female)
	R/R-Y: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G with sync/Y: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
	B/B-Y: 0.7 Vp-p ±2 dB (75 ohms terminated)
	SYNC/HD:
	Composite sync input: 1-5 Vp-p high impedance, positive/ negative
	Horizontal sync input: 1-5 Vp-p high impedance, positive/ negative
	VD:
	Vertical sync input: 1-5 Vp-p high impedance, positive/ negative
	DIGITAL RGB: DFP 20-pin (TMDS)
	USB HUB: Up (B type: female) × 1, Down (A type: female) × 1
	MOUSE (output): 13-pin (female)
	(For details, see "Pin assignment" on page 38 (GB).)
	AUDIO: Stereo minijack
	500 mVrms, impedance more than 47 kilohms
INPUT B	Analog RGB: HD D-sub15-pin (female)
	R: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G: 0.7 Vp-p ±2 dB (75 ohms terminated)
	G with sync: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
	B: 0.7 Vp-p ±2 dB (75 ohms terminated)
	SYNC/HD:
	Composite sync input: 1-5 Vp-p high impedance, positive/ negative
	Horizontal sync input: 1-5 Vp-p high impedance, positive/ negative
	VD:
	Vertical sync input: 1-5 Vp-p high impedance, positive/ negative
	MOUSE (output): 13-pin (female)
	(For details, see "Pin assignment" on page 38 (GB).)
	AUDIO: Stereo minijack
	500 mVrms, impedance more than 47 kilohms
OUTPUT	MONITOR OUT: HD D-sub 15-pin (female)
	R/R-Y,G/Y,B/B-Y: Gain Unity,75ohms
	SYNC/HD,VD: 4Vp-p (open), 1Vp-p (75ohms)
	* DIGITAL RGB signal is not output from MONITOR OUT terminal.
	AUDIO OUT (variable out): Stereo minijack
	max. 1 Vrms, When an input signal is 500 mVrms, impedance less than 5 kilohms
REMOTE	RS-232C: D-sub 9-pin (female)
CONTROL S IN/PLUG IN POWER	Stereo minijack 5Vp-p, plug in power, DC5V
Safety regulations	UL1950, CSA No.950, DHHS (Laser), DNHW (Laser), FCC Class A, IC Class A, EN60 950 (NEMKO), CE, C-Tick, CCIB, EN60 825-1 (Laser), VCCI class B, JEIDA

Laser beam

Laser type	Class 2
Wavelength	645 nm
Output	1 mW

General

Dimensions	339 × 142 × 335 mm (13 3/8 × 5 5/8 × 13 1/4 inches) (w/h/d)
Mass	Approx. 7.2 kg (15 lb 14 oz)
Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	Max. 290 W (Standby mode: 5 W)
Heat dissipation	989.6 BTU
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	35% to 85% (no condensation)
Storage temperature	–20°C to 60°C (32°F to 140°F)
Storage humidity	10% to 90%
Supplied accessories	Remote Commander RM-PJM610 (1)
	Size AA (R6) batteries (2)
	HD D-sub 15-pin Cable SMF-410 (1)

(Continued)

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1) ANSI lumen is a measuring method of American National Standard IT 7.228.

Mouse Cable
  SIC-S21 (for Serial) (2 m) (1)
  SIC-S22 (for PS/2) (2 m) (1)
Audio/video cable (1.5 m) (1)
USB Cable A type – B type (2 m) (1)
Application software, Projector Station (1)
Lens Cap (1)
Strap for Remote Commander (1)
AC power cord (1)
Air filter (for replacement) (1)
Operating Instructions (1)
Installation Manual for Dealers (1)
Quick Reference Card (1)
Warranty Card (1)

Design and specifications are subject to change without notice.

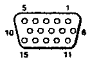
Optional accessories

Projector Lamp LMP-P200 (for replacement)
Projector Suspension Support PSS-610
Carrying Case VLC-600[1]
Signal Selector IFU-SC50
Monitor Cable
  SMF-400 (HD D-sub 15-pin (male) ←→ 5 × BNC (male))
  SMF-410 (HD D-sub 15-pin (male) ←→ HD D-sub 15-pin (male))
Signal cable
  SMF-401 (HD D-sub 15-pin (male) ←→ HD D-sub 15-pin (male))
Signal Interface Cable
  SIC-10 (5 × BNC (male) ←→ 5 × BNC (male))
Digital Signal Cable
  SMF-D102 (DFP 20-pin ←→ DFP 20-pin)
  SMF-D110 (DFP 20-pin ←→ DFP 20-pin)
Mouse Cable
  SIC-S20 (for Macintosh) (2 m)
  SIC-S21 (for Serial) (2 m)
  SIC-S22 (for PS/2) (2 m)
Signal Adapter
  ADP-20 (Macintosh ←→ HD D-sub 15-pin)
Projection Lens
  Long Focus Zoom Lens VPLL-ZM101
  Short Focus Zoom Lens VPLL-ZM31
  Fixed Short Focus Lens VPLL-FM21
Screens
  50-inch Portable VPS-50C[1]

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

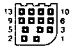
Pin assignment

RGB input connector (HD D-sub 15-pin, female)



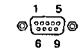
1	R/R-Y	9	N.C.
2	G/Y	10	GND
3	B/B-Y	11	GND
4	N.C.	12	N.C.
5	GND	13	HD/C.Sync
6	GND (R)	14	VD
7	GND (G)	15	N.C.
8	GND (B)		

MOUSE connector (13-pin, female)



1	RTS	8	R
2	GND	9	98/AT/TXD
3	XA	10	+5V/DTR
4	XB	11	CLOCK
5	YA	12	DATA
6	YB	13	RXD
7	L/PS		

RS-232C connector (D-sub 9-pin, female)



1	DCD	6	DSR
2	RX DA	7	RTS
3	TX DA	8	CTS
4	DTR	9	RI
5	GND		

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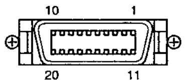
[1] VLC-600 and VPS-50C may not be available in some areas. For details, please consult your nearest Sony office.

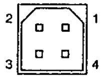
DIGITAL RGB input connector (DFP 20-pin, female)



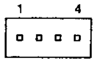
1	TX0–	11	TXC–
2	TX0+	12	TXC+
3	TX0 SHIELD	13	TXC SHIELD
4	TX2 SHIELD	14	TX1 SHIELD
5	TX2–	15	TX1–
6	TX2+	16	TX1+
7	DDC/SCL	17	NC
8	DDC/SDA	18	SENSE
9	NC	19	+5V DC
10	NC	20	GND

USB connector

Plug B (female)



Plug A

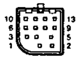


1	+5V
2	D–
3	D+
4	GND

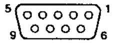
Mouse cable pin assignment

SIC-S21

13-pin



D-sub 9-pin

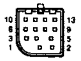


1	RTS	8	R
2	GND	9	98/AT/TXD
3	XA	10	+5V/DTR
4	XB	11	CLOCK
5	YA	12	DATA
6	YB	13	RXD
7	L/PS		

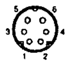
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

SIC-S22

13-pin



mini DIN 6-pin

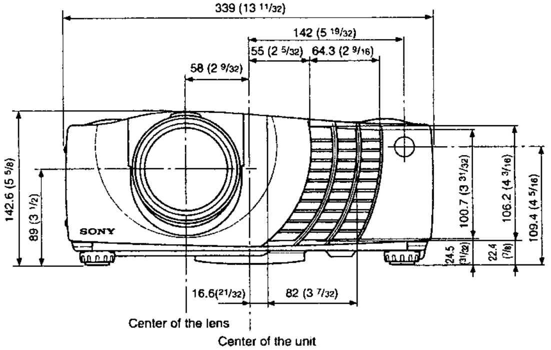


1	RTS	8	R
2	GND	9	98/AT/TXD
3	XA	10	+5V/DTR
4	XB	11	CLOCK
5	YA	12	DATA
6	YB	13	RXD
7	L/PS		

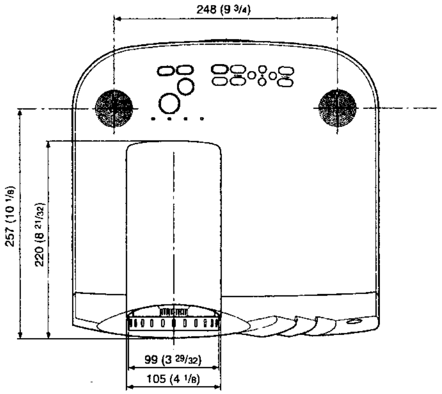
1	DATA
2	NC
3	GND
4	+5V
5	CLOCK
6	NC

Dimensions

Front

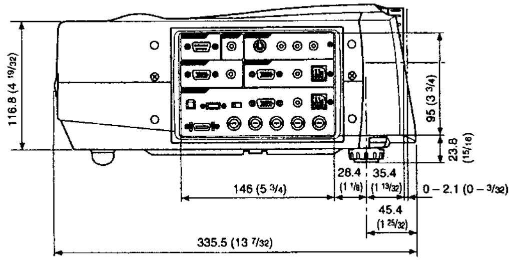

339 (13 11/32)
142 (5 19/32)
55 (2 5/32)
64.3 (2 9/16)
58 (2 9/32)
142.6 (5 5/8)
89 (3 1/2)
SONY
100.7 (3 31/32)
106.2 (4 3/16)
109.4 (4 5/16)
24.5 (31/32)
22.4 (7/8)
16.6(21/32)
82 (3 7/32)
Center of the lens
Center of the unit

Top

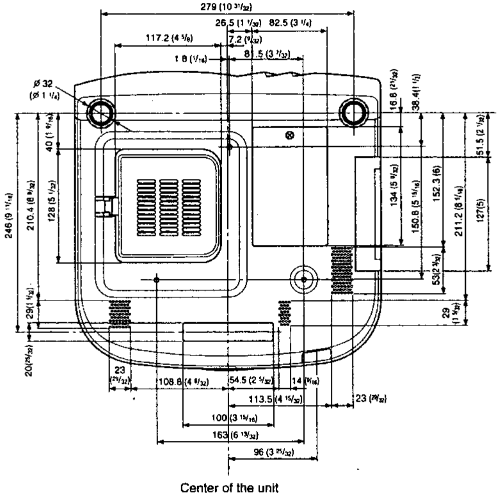

248 (9 3/4)
257 (10 1/8)
220 (8 21/32)
99 (3 29/32)
105 (4 1/8)

Unit: mm (inches)

Side


116.8 (4 19/32)
95 (3 3/4)
23.8 (15/16)
28.4 (1 1/8)
35.4 (1 13/32)
146 (5 3/4)
0 – 2.1 (0 – 3/32)
45.4 (1 25/32)
335.5 (13 7/32)

Bottom


279 (10 31/32)
26.5 (1 1/32)
82.5 (3 1/4)
117.2 (4 5/8)
7.2 (9/32)
1.8 (1/16)
81.5 (3 7/32)
ø 32 (ø 1 1/4)
16.8 (21/32)
38.4 (1 1/2)
51.5 (2 1/32)
246 (9 11/16)
210.4 (8 9/32)
40 (1 9/16)
128 (5 1/32)
134 (5 9/32)
150.8 (5 15/16)
152.3 (6)
211.2 (8 5/16)
127(5)
53(2 3/32)
29 (1 5/32)
29(1 5/32)
20(25/32)
23 (29/32)
108.8 (4 9/32)
54.5 (2 5/32)
14 (9/16)
113.5 (4 15/32)
23 (29/32)
100 (3 15/16)
163 (6 13/32)
96 (3 25/32)
Center of the unit

Unit: mm (inches)

Index

A

- Adjuster 10 (GB)
- Adjusting
  - memory of the settings 22 (GB)
  - the picture 22 (GB)
  - the picture size/shift 24 (GB)
- Air filter 33 (GB)
- APA function 11 (GB), 19 (GB)
- ASPECT 24 (GB)
- AUTO INPUT SEL 26 (GB)

B

- Battery
  - installation 14 (GB)
  - notes 14 (GB)
- BRIGHT 23 (GB)

C

- Carrying handle 9 (GB)
- COLOR 23 (GB)
- COLOR SYS (System) 23 (GB)
- COLOR TEMP 23 (GB)
- Condensation 30 (GB)
- Connections
  - component equipment 18 (GB)
  - computer 15 (GB)
  - VCR 17 (GB)
- CONTRAST 23 (GB)
- Cut off
  - the picture 19 (GB)
  - the sound 19 (GB)

D, E, F

- DIGIT KEYSTONE 27 (GB)
- DIGITAL RGB input connector 12 (GB)
  - pin assignment 39 (GB)
- DIGITAL RGB/5BNC/RGB switch 12 (GB)
- Dimensions 40 (GB)
- D. (Dynamic) PICTURE 23 (GB)
- DOT PHASE 24 (GB)
- 5BNC input connectors 12 (GB)

G

- GAMMA MODE 23 (GB)

H

- HUE 23 (GB)

I, J, K

- INPUT-A 26 (GB)
- INPUT SETTING menu 24 (GB)
- INSTALL SETTING menu 27 (GB)
- INSTALLATION 27 (GB)
- Installation examples 28 (GB)
  - on a ceiling 29 (GB)
  - on a floor 28 (GB)
- KEYSTONE MEM 27 (GB)

L

- LAMP MODE 27 (GB)
- Lamp replacement 32 (GB)
- LAMP TIMER 27 (GB)
- LANGUAGE 26 (GB)
- Location and function of controls
  - connector panel 12 (GB)
  - control panel 11 (GB)
  - front/left side 9 (GB)
  - rear/right side/bottom 9 (GB)
  - Remote Commander 13 (GB)

M, N

- Menu
  - clearing the menu display 22 (GB)
  - INPUT SETTING menu 24 (GB)
  - INSTALL SETTING menu 27 (GB)
  - PICTURE CTRL menu 22 (GB)
  - SET SETTING menu 26 (GB)
  - using the menu 22 (GB)
- Messages
  - cautions 35 (GB)
  - warnings 35 (GB)
- Mouse cable
  - connection 15 (GB)
  - pin assignment 39 (GB)
- Mouse connector 12 (GB)
  - pin assignment 38 (GB)

O

- Optional accessories 38 (GB)

P, Q

- PICTURE CTRL menu 22 (GB)
- Pin assignment 38 (GB)
- Power
  - turn off 20 (GB)
  - turn on 19 (GB)
- POWER SAVING 11 (GB), 27 (GB)
- Precautions 7 (GB)
- Projecting 19 (GB)
- PSS-610 Projector Suspension Support 29 (GB)

R

- Remote Commander
  - battery installation 14 (GB)
  - D ZOOM key 13 (GB), 21 (GB)
  - FUNCTION key 13 (GB)
  - HELP key 14 (GB)
  - laser pointer function 13 (GB), 21 (GB)
  - location and function of controls 13 (GB)
- Remote control detector
  - front 9 (GB)
  - rear 9 (GB)
  - setting 27 (GB)
- Reset
  - resettable items 22 (GB)
  - resetting the item 22 (GB)
- RGB ENHANCER 23 (GB)
- RGB input connector 12 (GB)
  - pin assignment 38 (GB)
- RS-232C connector 12 (GB)
  - pin assingment 38 (GB)

S

- SCAN CONV (Scan converter) 24 (GB)
- Screen size 14 (GB), 25 (GB), 36 (GB)
- SET SETTING menu 26 (GB)
- SHARP 23 (GB)
- SHIFT 24 (GB)
- SIRCS RECEIVER 9 (GB), 27 (GB)
- SIZE H 24 (GB)
- SPEAKER 26 (GB)
- Specifications 36 (GB)
- STATUS (on-screen display) 26 (GB)
- Supplied accessories 37 (GB)

T, U

- Tips for installation 30 (GB)
  - notes 30 (GB)
  - unsuitable places 30 (GB)
- Troubleshooting 34 (GB)
- USB connector 12 (GB)
  - pin assignment 39 (GB)

V, W, X, Y, Z

- Ventilation holes
  - exhaust 9 (GB)
  - intake 10 (GB)

SONY

4-073-987-01 (1)

LCD Data Projector

特約店様用設置説明書　3～10、46～59ページ
この特約店様用設置説明書には、レンズの交換方法、別売りのレンズ使用時や天井吊りの場合の設置寸法など、製品の設置時に必要な情報を記載しています。

Installation Manual for Dealers　Pages 3, 11 to 16 and 46 to 59
This installation Manual for Dealers explains how to install the projector. For example, it explains lens replacement, installation measurements when using the optional lens and hanging the projector from the ceiling.

Manuel d'installation pour les revendeurs　Pages 3, 17 à 22 et 46 à 59
Le manuel d'installation pour les revendeurs explique comment installer le projecteur. Par exemple, il explique la procédure de remplacement de l'objectif, les dimensions d'installation lorsque vous employez l'objectif en option et comment suspendre le projecteur au plafond.

Manual de instalación para proveedores　Páginas 3, 23 a 28 y 46 a 59
En este manual de instalación para proveedores se describe cómo instalar el proyector. Por ejemplo, se describe cómo sustituir el objetivo, las medidas de instalación cuando se utiliza el objetivo opcional y cómo colgar el proyector en el techo.

Installationsanleitung für Händler　Seite 3, 29 bis 34 und 46 bis 59
In dieser Installationsanleitung für Händler wird erläutert, wie Sie den Projektor installieren. Beispielsweise werden das Austauschen des Objektivs, die Installationsabmessungen beim Verwenden des gesondert erhältlichen Objektivs und das Installieren des Projektors an der Decke beschrieben.

Manuale d'installazione per i rivenditori　Pagine 3, 35 a 40 e 46 a 59
Il presente manuale contiene le istruzioni relative all'installazione del proiettore. Vengono riportate ad esempio le istruzioni su come sostituire l'obiettivo, le misure di installazione quando si utilizza l'obiettivo opzionale e le procedure dell'installazione al soffitto.

Installation Manual for Dealers　Pages 3, 41 to 45 and 60 to 64
This installation Manual for Dealers explains how to install the projector. For example, it explains lens replacement, installation measurements when using the optional lens and hanging the projector from the ceiling.

VPL-PX20
VPL-PX30

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日本語

目次

⚠ 警告 4
⚠ 注意 4
電池についての安全上のご注意 5
本機の性能を保持するために 6
概要 6
レンズ交換のしかた 7
リア投影（打ち込み角0。）時の
　レンズ位置の変更のしかた 8
設置寸法 46
　床置き、フロント投影 46
　天井つり、フロント投影 50
　床置き、リア投影（打ち込み角0°） 56

English

Table of Contents

Precautions **11**
Overview **12**
Replacing the Lens **13**
Changing the Lens Position for Rear Projection (Optical Axis Angle: 0 degree) **14**
Installation Diagram **46**
　Floor Installation (Front Projection) 46
　Ceiling Installation (Front Projection) 50
　Floor Installation (Rear Projection: Optical Axis Angle 0 Degree) 56

Français

Table des matières

Précautions **17**
Aperçu **18**
Remplacement de l'objectif **19**
Changement de la position de l'objectif pour la rétroprojection (angle d'axe optique : 0 degré) **20**
Schéma d'installation **46**
　Installation au sol (projection frontale) 46
　Installation au platfond (projection frontale) 50
　Installation au sol (Rétroprojection: angle d'axe optique de 0 degré) 56

Español

Indice

Precauciones **23**
Introducción **24**
Sustitución del objetivo **25**
Cambio de la posición del objetivo para la proyección posterior (ángulo de eje óptico: 0 grados) **26**
Diagrama de instalación **46**
　Instalación en el suelo (proyección frontal) 46
　Instalación en el techo (proyección frontal) 50
　Instalación en el suelo (proyección posterior: ángulo de eje óptico de 0 grados) 56

Deutsch

Inhalt

Sicherheitsmaßnahmen **29**
Übersicht **30**
Austauschen des Objektivs **31**
Ändern der Objektivposition für die Rückprojektion (Winkel der optischen Achse: 0 Grad) **32**
Installationsdiagramm **46**
　Installation am Boden (Frontprojektion) 46
　Installation an der Decke (Frontprojektion) 50
　Installation am Boden (Rückprojektion: Winkel der optischen Achse = 0 Grad) 56

Italiano

Indice

Precauzioni **35**
Presentazione **36**
Sostituzione dell'obiettivo **37**
Cambiamento di posizione dell'obiettivo per la proiezione posteriore (angolo di asse ottico: 0 gradi) **38**
Diagramma di installazione **46**
　Installazione sul pavimento (proiezione frontale) 46
　Installazione sul soffitto (proiezione frontale) 50
　Installazione sul pavimento (proiezione posteriore: grado zero dell'angolo di asse ottico) 56

Chinese

Table of Contents

Precautions **41**
Overview **42**
Replacing the Lens **42**
Changing the Lens Position for Rear Projection (Optical Axis Angle: 0 degree) **43**
Installation Diagram **60**
　Floor Installation (Front Projection) 61
　Ceiling Installation (Front Projection) 64
　Floor Installation (Rear Projection: Optical Axis Angle 0 Degree) 67

English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- To carry the projector, be sure to use the carrying handle. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-610 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 30 cm (11 $^{7}/_{8}$ inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortening lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.
- Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After you turn off the power with the I / ⏻ key on the control panel or on the Remote Commander, do not disconnect the unit from the wall outlet while the cooling fan is still running.
- Do not disconnect the AC power cord from the wall outlet while the fan is still running.

Caution

The projector is equipped with ventilation holes (intake) at the bottom and ventilation holes (exhaust) at the front. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals.

On repacking

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Overview

This manual describes how to install the Sony LCD Data Projector VPL-PX20/PX30, how to replace the lens, how to change the lens position for rear projection (optical axis angle: 0 degree), and installation diagrams. When you replace the lens or change the lens position, also refer to the Operating Instructions.

Replacing the Lens

You can install the following two types of lenses in the projector.

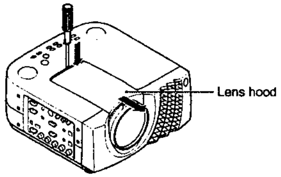
- VPLL-ZM101 Long Focus Zoom Lens
- VPLL-ZM31 Short Focus Zoom Lens

Follow the steps below to replace the lens.

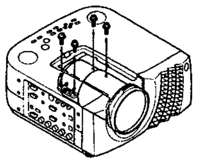
For details on replacing the lens, also refer to the installation manual supplied with the lens.

1 Turn off the power and disconnect the power cable.

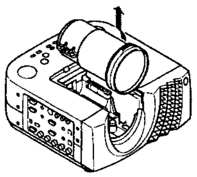
2 Remove the lens hood. To remove the lens hood, insert a screwdriver into the lens hood slit then lightly push down on the hood with the screwdriver and slide the lens hood forward.



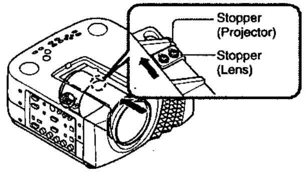
3 Remove the four screws (M4×12, with washers) locking the lens by using a Philips screwdriver.



4 Lift and remove the lens.



5 Install the lens with the lens stopper and the projector stopper met at their edges.

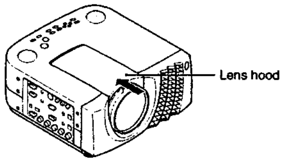


Note

For ease in identification when you install the lens, make sure that the label on the lens is facing up.

6 Tighten the four screws to secure the replacement lens firmly.

7 Install the lens hood by sliding it from front to back until it snaps into the lock position.



Notes

- The lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Avoid touching the lens surface.

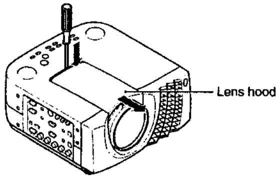
Changing the Lens Position for Rear Projection (Optical Axis Angle: 0 degree)

For rear projection, you can set the optical axis angle to 0 (zero). In this case, you will need to set the lens position as follows.
You can install the following types of lenses for a zero optical axis angle.

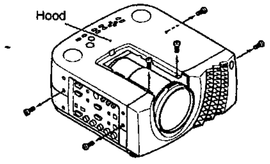
- Standard lens
- VPLL-ZM101 Long Focus Zoom Lens
- VPLL-ZM31 Short Focus Zoom Lens
- VPLL-FM21 Fixed Short Focus Lens

1 Turn off the power and disconnect the power cable.

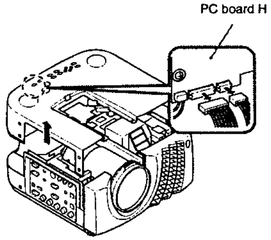
2 Remove the lens hood. To remove the lens hood, insert a screwdriver into the lens hood slit then lightly push down on the hood with the screwdriver and slide the lens hood forward.



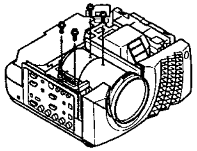
3 Remove the four silver screws (M3×8) on the both sides and two silver screws (M3×8) on the top locking the hood.



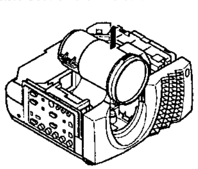
4 Disconnect the 12-pin connector and 4-pin connector (connected to the PC board H) from the hood. Lift the hood and set it behind the unit.



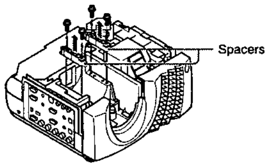
5 Remove the lens hood locking the lens by loosening the four screws (M4×12, with washers) with a Philips screwdriver.



6 Lift and remove the lens.



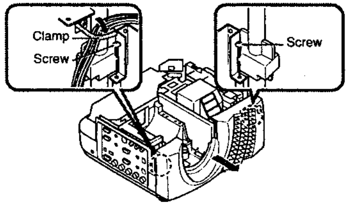
7 Remove the left and right spacers by loosening the four screws (M4×12, with washers).



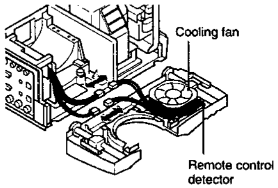
Note

The spacer and the screws may be needed later on. Store them.

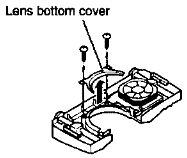
8 Remove two screws (M3×6, with washers) that lock the front panel. Free the wires from the clamp.


Clamp
Screw
Screw

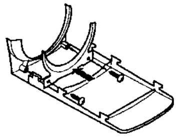
9 Disconnect the two connectors on the back of the front panel, one for cooling fan and the other for remote control detector, and then remove the front panel.


Cooling fan
Remote control detector

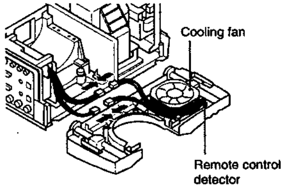
10 Remove the two screws (M3×6, with washers) from the front panel. Remove the lens bottom cover.


Lens bottom cover

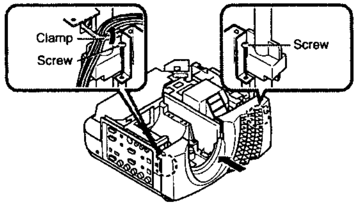
11 Install the lens bottom cover on the lens hood (removed in Step **2**) with the two screws.



12 Connect the connector for remote control detector and the connector for cooling fan.


Cooling fan
Remote control detector

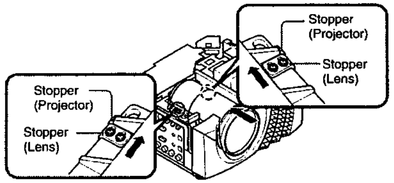
13 Install the front panel on the unit with the two screws (M3×6, with washers). Fasten the wires with the clamp.


Clamp
Screw
Screw

14 Install the lens with the lens stopper and the projector stopper met at their edges.

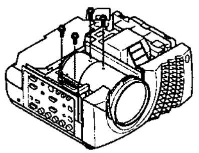
Notes

- Make sure that lens stoppers and projector stoppers are met on both sides.
- For ease in identification when you install the lens, make sure that the lens stopper is facing up.

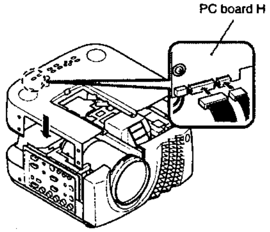

Stopper (Projector)
Stopper (Lens)
Stopper (Projector)
Stopper (Lens)

(continued)

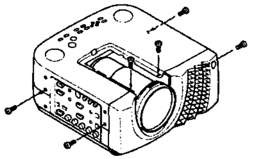
15 Lock the lens by tightening the four screws (M4×12, with washers).



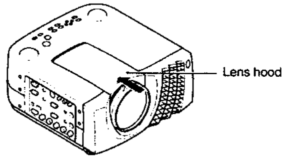
16 Connect the 12-pin connector and 4-pin connector to the PC board H (disconnected in Step **4**).



17 Install the hood and lock with the six screws (M3×8).



18 Install the lens hood by sliding it from front to back until it snaps into position.



English

Installation Diagram

Floor Installation (Front Projection)

Français

Schéma d'installation

Installation au sol (projection frontale)

Español

Diagrama de instalación

Instalación en el suelo (proyección frontal)

Deutsch

Installations-diagramm

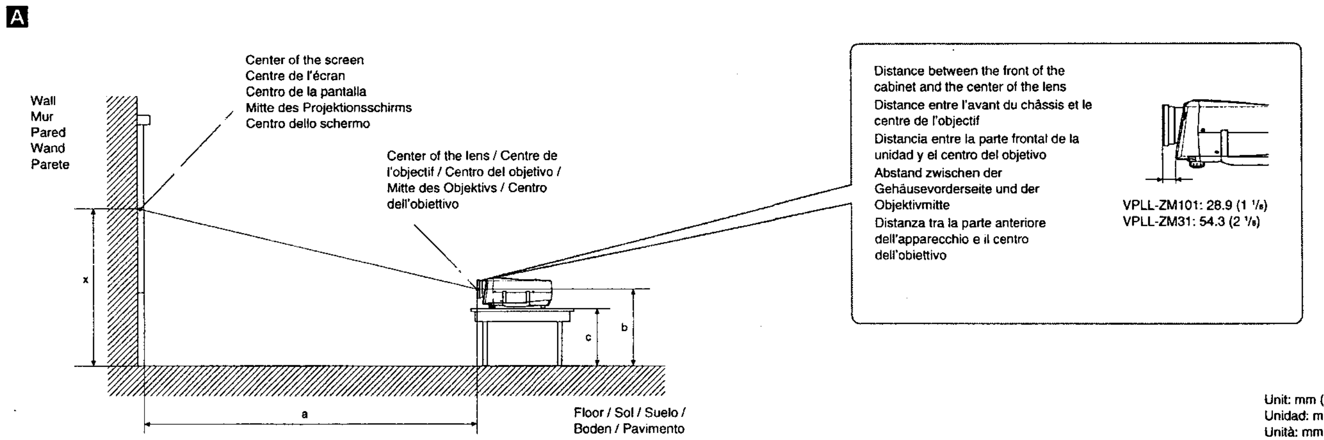
Installation am Boden (Frontprojektion)

Italiano

Diagramma di installazione

Installazione sul pavimento (proiezione frontale)

A


Wall
Mur
Pared
Wand
Parete
Center of the screen
Centre de l'écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
Center of the lens / Centre de l'objectif / Centro del objetivo / Mitte des Objektivs / Centro dell'obiettivo
x
b
c
a
Floor / Sol / Suelo / Boden / Pavimento

Distance between the front of the cabinet and the center of the lens

Distance entre l'avant du châssis et le centre de l'objectif

Distancia entre la parte frontal de la unidad y el centro del objetivo

Abstand zwischen der Gehäusevorderseite und der Objektivmitte

Distanza tra la parte anteriore dell'apparecchio e il centro dell'obiettivo

VPLL-ZM101: 28.9 (1 1/8)
VPLL-ZM31: 54.3 (2 1/8)

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

This section describes the examples for installing the projector on the desk, etc. A

See the charts on pages 48 and 49 concerning the installation measurements.

The alphabetical letters in the illustration indicate the distances below.

a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free

Cette section décrit des exemples d'installation du projecteur sur un bureau, etc. A

Reportez-vous aux tableaux des pages 48 à 49 sur les mesures d'installation.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.

a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre

En esta sección se muestran ejemplos para instalar el proyector sobre una mesa, etc. A

Consulte las tablas de las páginas 48 a 49 en relación con las medidas de instalación.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.

a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre

In diesem Abschnitt finden Sie Beispiele für das Installieren des Projektors auf einem Tisch usw. A

In den Tabellen auf Seite 48 bis 49 finden Sie die Installationsabmessungen.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.

a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei

Questa sezione descrive gli esempi di installazione del proiettore su un tavolo, ecc. A

Vedere i diagrammi da pagina 48 a pagina 49 relativi alle misure di installazione.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.

a : distanza fra lo schermo e il centro dell'obiettivo
b : distanza tra il pavimento e il centro dell'obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero

English

Installation Diagram

Floor Installation (Front Projection)

Français

Schéma d'installation

Installation au sol (projection frontale)

■ **VPLL-ZM101**

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	60	80	100	120	150	180	200	250	300
a	N	2600 (102 3/8)	4000 (157 1/2)	5410 (213 1/8)	6810 (268 1/4)	8220 (323 3/4)	10330 (406 3/4)	12430 (489 1/2)	13840 (545)	17350 (683 1/4)	20870 (821 7/8)
	M	3890 (153 1/4)	5940 (234)	7980 (314 1/4)	10030 (394 15/16)	12080 (475 3/4)	15150 (596 5/8)	18220 (717 1/2)	20270 (798 1/4)	25380 (999 3/8)	30500 (1201)
b		x–305 (12)	x–457 (18)	x–610 (24)	x–762 (30)	x–914 (36)	x–1143 (45)	x–1372 (54)	x–1524 (60)	x–1905 (75 1/8)	x–2286 (90 1/8)
c		x–394 (15 5/8)	x–546 (21 5/8)	x–699 (27 5/8)	x–851 (33 5/8)	x–1003 (39 5/8)	x–1232 (48 5/8)	x–1461 (57 5/8)	x–1613 (63 5/8)	x–1994 (78 5/8)	x–2375 (93 5/8)

a (N) = {(SS × 89.82/1.3102) – 209.2626} × 1.025
a (M) = {(SS × 137.56012/1.3102) – 211.5915} × 0.975
b = x – (SS/1.3102 × 9.984)
c = x – (SS/1.3102 × 9.984 + 89)

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
M : maximum

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
M : maximum

Español

Diagrama de instalación

Instalación en el suelo (proyección frontal)

Deutsch

Installations-diagramm

Installation am Boden (Frontprojektion)

Italiano

Diagramma di installazione

Installazione sul pavimento (proiezione frontale)

■ **VPLL-ZM31**

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	60	80	100	120	150	180	200	250	300
a	N	1190 (46 7/8)	1840 (72 1/2)	2490 (98 1/8)	3150 (124 1/8)	3800 (149 5/8)	4780 (188 1/4)	5760 (226 7/8)	6410 (252 1/2)	8050 (317)	9680 (381 1/4)
	M	1250 (49 1/4)	1940 (76 1/2)	2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
b		x–305 (12)	x–457 (18)	x–610 (24)	x–762 (30)	x–914 (36)	x–1143 (45)	x–1372 (54)	x–1524 (60)	x–1905 (75 1/8)	x–2286 (90 1/8)
c		x–394 (15 5/8)	x–546 (21 5/8)	x–699 (27 5/8)	x–851 (33 5/8)	x–1003 (39 5/8)	x–1232 (48 5/8)	x–1461 (57 5/8)	x–1613 (63 5/8)	x–1994 (78 5/8)	x–2375 (93 5/8)

a (N) = {(SS × 41.75/1.3102) – 116.2604} × 1.025
a (M) = {(SS × 45.821033/1.3102) – 112.9154} × 0.975
b = x – (SS/1.3102 × 9.984)
c = x – (SS/1.3102 × 9.984 + 89)

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
M : máximo

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

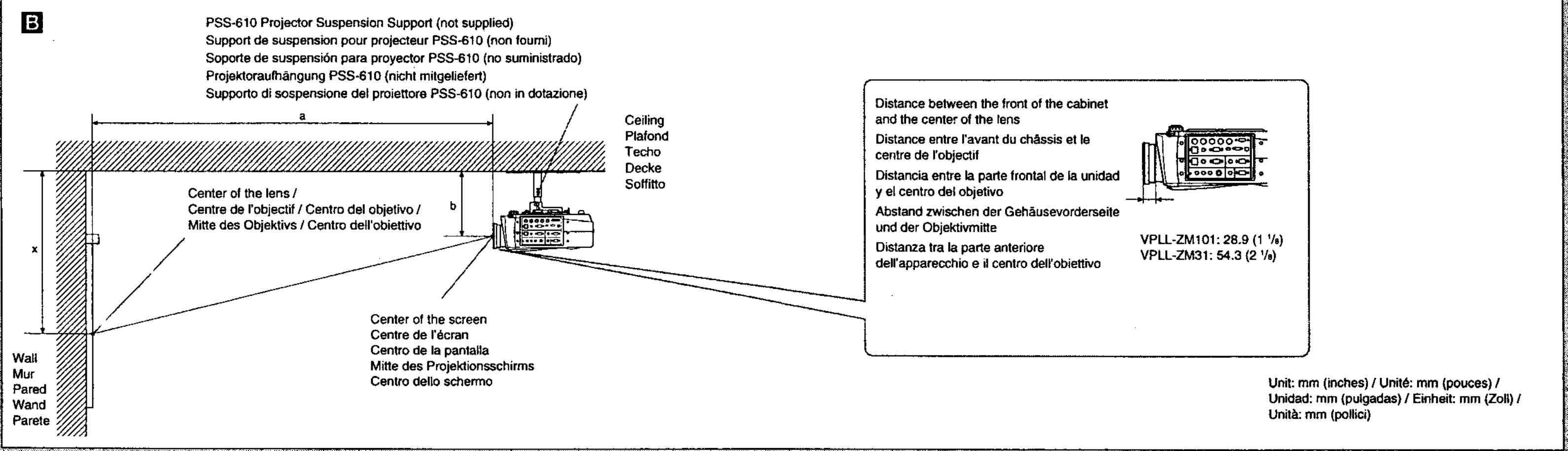
Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
M : Höchstenss

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell'obiettivo
b : distanza tra il pavimento e il centro dell'obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
M : Massima

English

Ceiling Installation (Front Projection)


B
PSS-610 Projector Suspension Support (not supplied)
Support de suspension pour projecteur PSS-610 (non fourni)
Soporte de suspensión para proyector PSS-610 (no suministrado)
Projektoraufhängung PSS-610 (nicht mitgeliefert)
Supporto di sospensione del proiettore PSS-610 (non in dotazione)
a
Ceiling
Plafond
Techo
Decke
Soffitto
Center of the lens / Centre de l'objectif / Centro del objetivo / Mitte des Objektivs / Centro dell'obiettivo
b
x
Center of the screen
Centre de l'écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
Wall
Mur
Pared
Wand
Parete
Distance between the front of the cabinet and the center of the lens
Distance entre l'avant du châssis et le centre de l'objectif
Distancia entre la parte frontal de la unidad y el centro del objetivo
Abstand zwischen der Gehäusevorderseite und der Objektivmitte
Distanza tra la parte anteriore dell'apparecchio e il centro dell'obiettivo
VPLL-ZM101: 28.9 (1 1/8)
VPLL-ZM31: 54.3 (2 1/8)
Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

This section describes the examples for installing the projector on the ceiling.
B
When installing the projector on the ceiling, use the PSS-610 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.

See the charts on pages 52 to 53 concerning the installation measurements.

The alphabetical letters in the illustration indicate the distances below.
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
x : Distance between the ceiling and the center of the screen

Français

Installation au plafond (projection frontale)

Cette section décrit des exemples d'installation du projecteur au plafond.
B
Lorsque vous installez le projecteur au plafond, utilisez le support de suspension pour projecteur PSS-610.
Pour une installation au plafond, adressez-vous uniquement à un personnel qualifié Sony.

Reportez-vous aux tableaux des pages 52 à 53 sur les mesures d'installation.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.
a : distance entre l'écran et le centre de l'objectif
b : distance entre le plafond et le centre de l'objectif
x : distance entre le plafond et le centre de l'écran

Español

Instalación en el techo (proyección frontal)

En esta sección se muestran ejemplos para instalar el proyector en el techo. **B**
Para instalar el proyector en el techo, utilice el soporte de suspensión para proyector PSS-610.
Para realizar la instalación en el techo, solicite asistencia técnica únicamente a personal especializado de Sony.

Consulte las tablas de las páginas 52 a 53 en relación con las medidas de instalación.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
x : distancia entre el techo y el centro de la pantalla

Deutsch

Installation an der Decke (Frontprojektion)

In diesem Abschnitt finden Sie Beispiele für das Installieren des Projektors an der Decke. **B**
Zur Installation des Projektors an der Decke benötigen Sie die Projektoraufhängung PSS-610.
Wenn Sie das Gerät an der Decke montieren wollen, wenden Sie sich bitte an qualifiziertes Sony-Personal.

In den Tabellen auf Seite 52 bis 53 finden Sie die Installationsabmessungen.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms

Italiano

Installazione sul soffitto (proiezione frontale)

Questa sezione descrive gli esempi di installazione al soffitto del proiettore.
B
Quando viene installato il proiettore sul soffitto utilizzare il supporto di sospensione del proiettore PSS-610.
Per l'installazione al soffitto, rivolgersi esclusivamente a personale qualificato Sony.

Vedere i diagrammi da pagina 52 a pagina 53 relative alle misure di installazione.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.
a : distanza tra lo schermo e il centro dell'obiettivo
b : distanza tra il soffitto e il centro dell'obiettivo
x : distanza tra il soffitto e il centro dello schermo

English

Ceiling Installation (Front Projection)

Français

Installation au platfond (projection frontale)

■ VPLL-ZM101

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		80	100	120	150	180	200	250	300
a	N	5410 (213 1/8)	6810 (268 1/4)	8220 (323 3/4)	10330 (406 3/4)	12430 (489 1/2)	13840 (545)	17350 (683 1/4)	20870 (821 7/8)
	M	7980 (314 1/4)	10030 (394 15/16)	12080 (475 3/4)	15150 (596 5/8)	18220 (717 1/2)	20270 (798 1/4)	25380 (999 3/8)	30500 (1201)
x		b+610 (24)	b+762 (30)	b+914 (36)	b+1143 (45)	b+1372 (54)	b+1524 (60)	b+1905 (75 1/8)	b+2286 (90 1/8)
b		P							

a (N) = {(SS × 89.82/1.3102) – 209.2626} × 1.025
a (M) = {(SS × 137.56012/1.3102) – 211.5915} × 0.975
x = b + (SS/1.3102 × 9.984)

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : Distance between the screen and the center of the lens
b : Distance between the ceiling and the center of the lens
x : Distance between the ceiling and the center of the screen
N : minimum
M : maximum
P : 231, 256, 281, 331, 356, 381 mm (9 1/8, 10 1/8, 11 1/8, 13 1/8, 14 1/8, 15 inches) adjustable when using PSS-610

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le plafond et le centre de l'objectif
x : distance entre le plafond et le centre de l'écran
N : minimum
M : maximum
P : Si vous utilisez le PSS-610, la hauteur peut être réglée à 231, 256, 281, 331, 356, 381 mm (9 1/8, 10 1/8, 11 1/8, 13 1/8, 14 1/8, 15 pouces).

Español

Instalación en el techo (proyección frontal)

Deutsch

Installation an der Decke (Frontprojektion)

Italiano

Installazione sul soffitto (proiezione frontale)

■ VPLL-ZM31

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		80	100	120	150	180	200	250	300
a	N	2490 (98 1/8)	3150 (124 1/8)	3800 (149 5/8)	4780 (188 1/4)	5760 (226 7/8)	6410 (252 1/2)	8050 (317)	9680 (381 1/4)
	M	2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
x		b+610 (24)	b+762 (30)	b+914 (36)	b+1143 (45)	b+1372 (54)	b+1524 (60)	b+1905 (75 1/8)	b+2286 (90 1/8)
b		P							

a (N) = {(SS × 41.75/1.3102) – 116.2604} × 1.025
a (M) = {(SS × 45.821033/1.3102) – 112.9154} × 0.975
x = b + (SS/1.3102 × 9.984)

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el techo y el centro del objetivo
x : distancia entre el techo y el centro de la pantalla
N : mínimo
M : máximo
P : Si utiliza la unidad PSS-610, la altura podrá ajustarse en 231, 256, 281, 331, 356, 381 mm (9 1/8, 10 1/8, 11 1/8, 13 1/8, 14 1/8, 15 pulgadas).

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen der Decke und der Mitte des Objektivs
x : Abstand zwischen der Decke und der Mitte des Projektionsschirms
N : Mindestens
M : Höchstens
P : Wenn Sie die PSS-610 verwenden, kann die Höhe auf die folgenden Zahlenwerte eingestellt werden 231, 256, 281, 331, 356, 381 mm.

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza tra lo schermo e il centro dell'obiettivo
b : distanza tra il soffitto e il centro dell'obiettivo
x : distanza tra il soffitto e il centro dello schermo
N : Minima
M : Massima
P : Quando si usa il PSS-610, l'altezza può essere regolata su 231, 256, 281, 331, 356, 381 mm.

English

Attaching the projector suspension support PSS-610

Français

Fixation du support de suspension de projecteur PSS-610

Español

Instalación del soporte de suspensión del proyector PSS-610

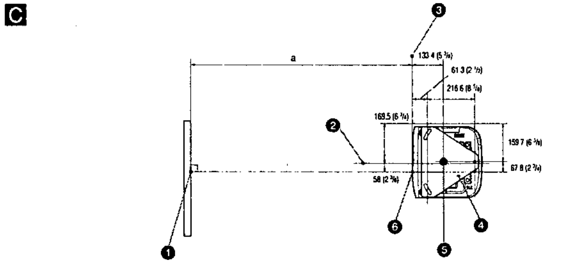
Deutsch

Anbringen der Projektoraufhängung PSS-610

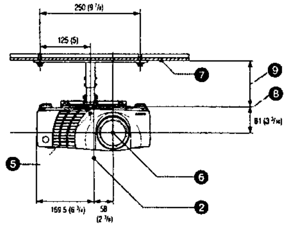
Italiano

Applicazione del supporto di sospensione del proiettore PSS-610

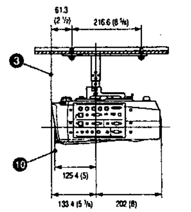
C



D



E



• When using the standard lens equipped with the VPL-PX20/PX30 / Si vous utilisez l'objectif standard qui équipe le VPL-PX20/PX30 / Installation mit dem Standardobjektiv des VPL-PX20/PX30 / Al emplear el objetivo estándar equipado con el VPL-PX20/PX30 / Quando si utilizza l'obiettivo standard in dotazione con il VPL-PX20/PX30

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

For more details on the ceiling installation, refer to the Installation manual for Dealers of the PSS-610. The installation measurements are shown above when you install the projector on the ceiling.

Top view C

Align the center of the lens with the center of the screen.

Front view D

The lens is offset 67.8 mm (2 3/4 inches) to the right from the center of the supporting pole. When mounting, take care to align the center of the lens with the center of the screen; not the center of the supporting pole.

Side view E

a) Distance between the screen and the center of the lens
❶ Center of the screen
❷ Center of the unit
❸ Front of the cabinet
❹ Upper ceiling mount bracket
❺ Center of the supporting pole (The center of the supporting pole is different from that of the unit.)
❻ Center of the lens
❼ Ceiling
❽ The bottom surface of the mounting bracket
❾ Distance between the ceiling and the surface of the mounting bracket
Using adjustment pipe (b):
150/175/200 mm (6/7/7 7/8 inches)
Using adjustment pipe (c):
250/275/300 mm (9 7/8 /10 7/8 /11 7/8 inches)
❿ Front of the lens

Pour plus de détails sur l'installation au plafond, reportez-vous au manuel d'installation pour les revendeurs du PSS-610. Les dimensions d'installation pour le montage au plafond sont indiquées ci-dessus.

Vue du dessus C

Alignez le centre de l'objectif sur le centre de l'écran.

Vue frontal D

L'objectif est décalé de 67.8 mm (2 3/4 pouces) vers la droite du centre du pivot de support. Au moment du montage, veillez à aligner correctement le centre de l'objectif sur le centre de l'écran; pas le centre du pivot de support.

Vue latérale E

a) Distance entre l'écran et le centre de l'objectif
❶ Centre de l'écran
❷ Centre de l'appareil
❸ Avant du meuble
❹ Support de montage de plafond supérieur
❺ Centre du pivot de support (Le centre du pivot de support est différent de celui de l'appareil.)
❻ Centre de l'objectif
❼ Plafond
❽ Le dessous du support de montage
❾ Distance entre le plafond et la surface du supprt de montage
Utilisation du tube de réglage (b):
150/175/200 mm (6/7/7 7/8 pouces)
Utilisation du tube de réglage (c):
250/275/300 mm (9 7/8 /10 7/8 /11 7/8 pouces)
❿ Avant de l'objectif

Para más información sobre la instalación en el techo, consulte el manual de instalación para proveedores de la unidad PSS-610. Las medidas de instalación se muestran anteriormente para cuando instale el proyector en el techo.

Vista superior C

Alinee el centro del objetivo con el centro de la pantalla.

Vista frontal D

El objetivo está desplazado 67.8 mm (2 3/4 pulgadas) a la derecha del centro de la columna de soporte. Al realizar el montaje, alinee el centro del objetivo con el centro de la pantalla y no con el centro de la columna de soporte.

Vista lateral E

a) Distancia entre la pantalla y el centro del objetivo
❶ Centro de la pantalla
❷ Centro de la unidad
❸ Parte frontal de la caja
❹ Soporte de montaje superior para techo
❺ Centro de la columna de soporte (El centro de la columna de soporte no es el mismo que el de la unidad.)
❻ Centro del objetivo
❼ Techo
❽ La base del la superficie del soporte de montaje
❾ Distancia entre el techo y la base del proyector
Uso del tubo de ajuste (b):
150/175/200 mm (6/7/7 7/8 pulgadas)
Uso del tubo de ajuste (c):
250/275/300 mm (9 7/8 /10 7/8 /11 7/8 pulgadas)
❿ Parte frontal del objetivo

Näheres zur Deckenmontage finden Sie in der Installationsanleitung zur PSS-610 für Händler. Die Installationsabmessungen für das Montieren des Projektors an der Decke sind oben angegeben.

Draufsicht C

Richten Sie die Mitte des Objektivs an der Mitte des Projektionsschirms aus.

Vorderansicht D

Das Objektiv am Projektor ist 67,8 mm nach rechts von der Mitte des Ständers versetzt. Achten Sie beim Installieren darauf, die Mitte des Objektivs, nicht die Mitte des Ständers, an der Mitte des Projektionsschirms auszurichten.

Seitenansicht E

a) Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
❶ Mitte des Projektionsschirms
❷ Mitte des Geräts
❸ Vorderseite des Gehäuses
❹ Deckenmontagehalterung
❺ Mitte des Ständers (Die Mitte des Ständers entspricht nicht der des Geräts.)
❻ Mitte des Objektivs
❼ Decke
❽ Die Unterseite der Halterung
❾ Abstand zwischen der Decke und der Oberlfäche der Hlaterung
Mit Einstellrohr (b): 150/175/200 mm
Mit Einstellrohr (c): 250/275/300 mm
❿ Vorderseite des Objektivs

Per ulteriori informazioni sull'installazione al soffitto, fare riferimento al manuale di installazione per rivenditori relativo al supporto di sospensione PSS-610. Le misure di installazione per l'installazione al soffitto sono indicate di seguito.

Vista dall'alto C

Allineare il centro della lente con il centro dello schermo.

Vista frontale D

Rispetto al centro per l'asta di supporto, la lente del proiettore è spostata verso destra di 67,8 mm. Durante il montaggio, assicurarsi di allineare il centro della lente del proiettore e non il centro per l'asta di supporto con il centro dello schermo.

Vista laterale E

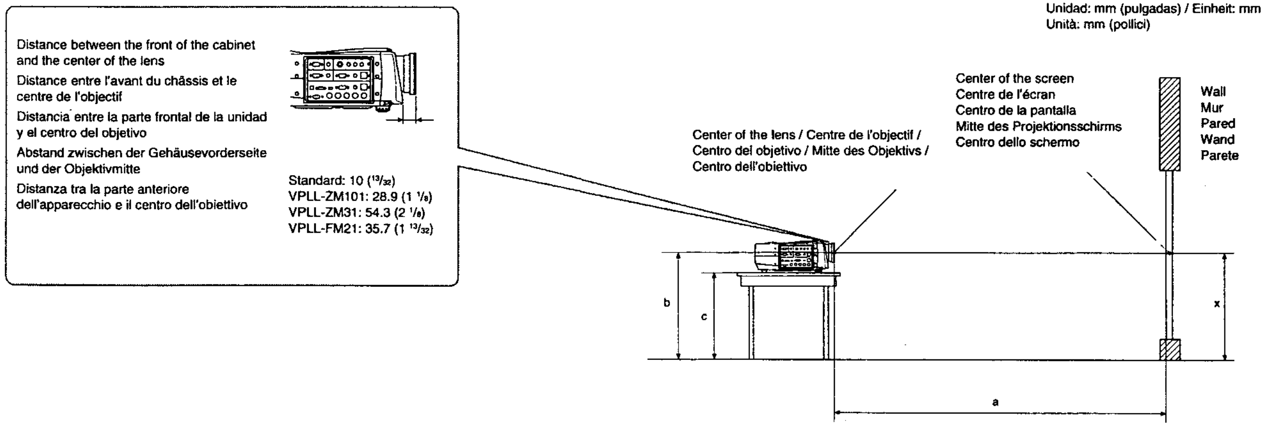
a) Distanza fra lo schermo e il centro dell'obiettivo
❶ Centro dello schermo
❷ Centro dell'apparecchio
❸ Parte anteriore dell'apparecchio
❹ Staffa di montaggio al soffitto
❺ Centro per l'asta di supporto (Il centro per l'asta di supporto è diverso da quello dell'apparecchio.)
❻ Centro della lente
❼ Soffitto
❽ La superficie inferiore della staffa di montaggio
❾ Distanza fra il soffitto e la superficie della staffa di montaggio
Utilizzando il tubo di regolazione (b):
150/175/200 mm
Utilizzando il tubo di regolazione (c):
250/275/300 mm
❿ Parte anteriore della lente

English

Floor Installation (Rear Projection: Optical Axis Angle 0 Degree)

F

Unit: mm (inches) / Unité: mm (pouces) /
Unidad: mm (pulgadas) / Einheit: mm (Zoll) /
Unità: mm (pollici)


Distance between the front of the cabinet and the center of the lens
Distance entre l'avant du châssis et le centre de l'objectif
Distancia entre la parte frontal de la unidad y el centro del objetivo
Abstand zwischen der Gehäusevorderseite und der Objektivmitte
Distanza tra la parte anteriore dell'apparecchio e il centro dell'obiettivo
Standard: 10 (13/32)
VPLL-ZM101: 28.9 (1 1/8)
VPLL-ZM31: 54.3 (2 1/8)
VPLL-FM21: 35.7 (1 13/32)
Center of the lens / Centre de l'objectif / Centro del objetivo / Mitte des Objektivs / Centro dell'obiettivo
Center of the screen
Centre de l'écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
Wall
Mur
Pared
Wand
Parete
b
c
x
a

This section describes the examples for installing the projector behind the screen, etc. F

See the charts on pages 58 and 59 concerning the installation measurements.

The alphabetical letters in the illustration indicate the distances below.

- a : distance between the screen and the center of the lens
- b : distance between the floor and the center of the lens
- c : distance between the floor and the bottom of the adjusters of the projector
- x : free

Note

If the projector has been set at the factory and if you project a picture from the rear, the picture will be upside down. If you use a mirror, the picture may be reversed. In these cases, change the INSTALLATION in the INSTALL SETTING menu.
For details, refer to the "INSTALL SETTING" menu in the Operating Instructions for your LCD data projector.

Français

Installation au sol (Rétroprojection: angle d'axe optique de 0 degré)

Cette section décrit les exemples d'installation du projecteur derrière l'écran, etc. F

Reportez-vous aux tableaux des pages 58 à 59 sur les mesures d'installation.

Les caractères alphabétiques dans l'illustration indiquent les distances ci-dessous.

- a : distance entre l'écran et le centre de l'objectif
- b : distance entre le sol et le centre de l'objectif
- c : distance entre le sol et la base des pieds réglables du projecteur
- x : libre

Remarque

Si le projecteur est réglé par défaut et si vous rétroprojetez une image, l'image sera retournée. Vous pouvez redresser l'image en utilisant un miroir. Dans ces cas, changez INSTALLATION dans le menu REGL. INSTAL.
Pour plus de détails, voir le menu "REGL. INSTAL." dans le mode d'emploi de votre projecteur de données LCD.

Español

Instalación en el suelo (proyección posterior: ángulo de eje óptico de 0 grados)

En esta sección se muestran ejemplos para instalar el proyector detrás de la pantalla, etc. F

Consulte las tablas de las páginas 58 a 59 en relación con las medidas de instalación.

Las letras alfabéticas de la ilustración indican las distancias mostradas a continuación.

- a : distancia entre la pantalla y el centro del objetivo
- b : distancia entre el suelo y el centro del objetivo
- c : distancia entre el suelo y la base de los ajustadores del proyector
- x : libre

Nota

Si el proyector se ha ajustado en fábrica y proyecta una imagen desde la parte posterior, la imagen aparecerá invertida. Si utiliza un espejo, es posible que aparezca al revés. En estos casos, cambie la opción INSTALACION del menú AJUSTE INST.
Para obtener información más detallada, consulte el menú "AJUSTE INST" en las instrucciones de uso de vuestro proyector LCD de datos.

Deutsch

Installation am Boden (Rückprojektion: Winkel der optischen Achse = 0 Grad)

In diesem Abschnitt finden Sie Beispiele für das Installieren des Porjektors hinter dem Projektionsschirm usw. F

In den Tabellen auf Seite 58 bis 59 finden Sie die Installationsabmessungen.

Die Buchstaben in der Abbildung beziehen sich auf die unten beschriebenen Abstände.

- a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
- b : Abstand zwischen dem Boden und der Mitte des Objektivs
- c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
- x : frei

Hinweis

Wenn der Projektor werkseitig eingestellt wurde und Sie ein Bild mit dem Rückprojektionsverfahren projizieren, erscheint das Bild auf dem Kopf. Wenn Sie einen Spiegel verwenden, erscheint das Bild möglicherweise seitenverkehrt. Ändern Sie in diesem Fall die Einstellung für INSTALLATION im Menü ANFANGSWERTE.
Näheres können Sie im Abschnitt zum Menü "ANFANGSWERTE" in der Bedienungsanleitung Ihres LCD-Datenprojektors nachlesen.

Italiano

Installazione sul pavimento (proiezione posteriore: grado zero dell'angolo di asse ottico)

Questa sezione descrive gli esempi di installazione del proiettore dietro allo schermo, ecc. F

Vedere i diagrammi da pagina 58 a pagina 59 relativi alle misure di installazione.

Le lettere nell'illustrazione indicano le distanze descritte di seguito.

- a : distanza fra lo schermo e il centro dell'obiettivo
- b : distanza tra il pavimento e il centro dell'obiettivo
- c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
- x : libero

Nota

Se il proiettore è stato impostato in fabbrica e si proietta un'immagine dalla parte posteriore, l'immagine risulterà capovolta. Se si utilizza uno specchio, l'immagine potrebbe risultare invertita. In questi casi, modificare INSTALLAZIONE nel menu IMPOST.INST.
Per informazioni dettagliate, fare riferimento a al menu "IMPOST.INST" nelle istruzioni per l'uso de vostro proiettore di dati con schermo a cristalli liquidi.

English

Floor Installation (Rear Projection: Optical Axis Angle 0 Degree)

Français

Installation au sol (Rétroprojection: angle d'axe optique de 0 degré)

■ Standard lens / Objectif standard / Objetivo estándar / Standardobjektiv / Uso Obiettivo standard

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	60	80	100	120	150	180	200	250	300
a	N	1490 (58 3/4)	2280 (89 7/8)	3060 (120 1/2)	3850 (151 5/8)	4630 (182 3/8)	5810 (228 7/8)	6990 (275 1/4)	7770 (306)	9740 (383 5/8)	11700 (460 3/4)
	M	1820 (71 3/4)	2780 (109 1/2)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)
b		x (x)									
c		x–79 (x–3 1/8)									

$a (N) = \{(SS \times 50.18/1.3102) - 75.10104\} \times 1.025$
$a (M) = \{(SS \times 64.518746/1.3102) - 107.8977\} \times 0.975$
$b = x$
$c = x - 79$

■ VPLL-ZM101

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	60	80	100	120	150	180	200	250	300
a	N	2600 (102 3/8)	4000 (157 1/2)	5410 (213 1/8)	6810 (268 1/4)	8220 (323 3/4)	10330 (408 3/4)	12430 (489 1/2)	13840 (545)	17350 (683 1/4)	20870 (821 7/8)
	M	3890 (153 1/4)	5940 (234)	7980 (314 1/4)	10030 (394 15/16)	12080 (475 3/4)	15150 (596 5/8)	18220 (717 1/2)	20270 (798 1/4)	25380 (999 3/8)	30500 (1201)
b		x (x)									
c		x–79 (x–3 1/8)									

$a (N) = \{(SS \times 89.82/1.3102) - 209.2626\} \times 1.025$
$a (M) = \{(SS \times 137.56012/1.3102) - 211.5915\} \times 0.975$
$b = x$
$c = x - 79$

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
M : maximum

Les mesures d'installation et leur méthode de calcul pour chaque objectif sont indiquées ci-dessus.

Les caractères alphabétiques dans l'illustration indiquent ce qui suit.
SS : dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif
c : distance entre le sol et la base des pieds réglables du projecteur
x : libre
N : minimum
M : maximum

Español

Instalación en el suelo (proyección posterior: ángulo de eje óptico de 0 grados)

Deutsch

Installation am Boden (Rückprojektion: Winkel der optischen Achse = 0 Grad)

Italiano

Installazione sul pavimento (proiezione posteriore: grado zero dell'angolo di asse ottico)

■ VPLL-ZM31

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS		40	60	80	100	120	150	180	200	250	300
a	N	1190 (46 7/8)	1840 (72 1/2)	2490 (98 1/8)	3150 (124 1/8)	3800 (149 5/8)	4780 (188 1/4)	5760 (226 7/8)	6410 (252 1/2)	8050 (317)	9680 (381 1/4)
	M	1250 (49 1/4)	1940 (76 1/2)	2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
b		x (x)									
c		x–79 (x–3 1/8)									

$a (N) = \{(SS \times 41.75/1.3102) - 116.2604\} \times 1.025$
$a (M) = \{(SS \times 45.821033/1.3102) - 112.9154\} \times 0.975$
$b = x$
$c = x - 79$

■ VPLL-FM21

Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)

SS	40	60	80	100	120	150	180	200	250	300
a	670 (26 1/2)	1050 (41 3/8)	1430 (56 3/8)	1800 (70 7/8)	2180 (85 7/8)	2750 (108 3/8)	3310 (130 3/8)	3690 (145 3/8)	4630 (182 3/8)	5580 (219 3/4)
b	x (x)									
c	x–79 (x–3 1/8)									

$a = \{(SS \times 24.71/1.3102) - 81.86279\} \times 1.0$
$b = x$
$c = x - 79$

Las medidas de instalación y sus métodos de cálculo para cada objetivo se muestran anteriormente.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia entre la pantalla y el centro del objetivo
b : distancia entre el suelo y el centro del objetivo
c : distancia entre el suelo y la base de los ajustadores del proyector
x : libre
N : mínimo
M : máximo

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind oben angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Mitte des Objektivs
c : Abstand zwischen dem Boden und der Unterseite der Ausgleichsfüße des Projektors
x : frei
N : Mindestens
M : Höchstenss

Le misure di installazione e il loro metodo di calcolo per ogni obiettivo sono mostrati qui sopra.

Le lettere nei diagrammi e i metodi di calcolo indicano quanto segue.
SS : dimensione schermo misurata diagonalmente (pollici)
a : distanza fra lo schermo e il centro dell'obiettivo
b : distanza tra il pavimento e il centro dell'obiettivo
c : distanza fra il pavimento e la base dei dispositivi di regolazione del proiettore
x : libero
N : Minima
M : Massima

SONY

4-073-992-01 (1)

Quick Reference Card / Carte de référence rapide /Tarjeta de referencia rápida / Kurzreferenz / Scheda di riferimento rapido

VPL-PX20/VPL-PX30

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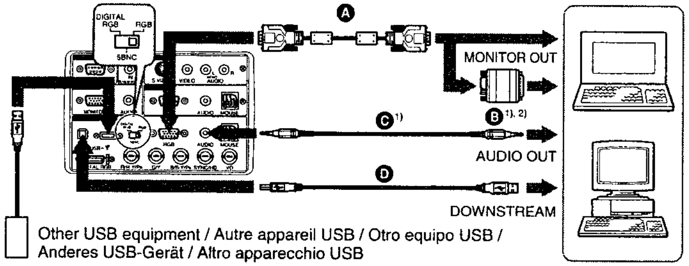
Connections / Connexions / Conexiones / Anschlüsse / Collegamenti

- Ⓐ HD D-sub 15-pin cable / Câble HD D-sub à 15 broches / Cable HD D-sub 15 pines / 15poliges D-Sub-HD-Kabel / Cavo HD D-sub a 15 piedini
- Ⓑ Signal adapter / Adaptateur de signal / Adaptador de señales / Signaladapter / Adattatore del segnale
- Ⓒ Stereo audio connecting cable / Câble de connexion audio stéréo / Cable de conexión de audio estéreo / Stereo-Audioverbindungskabel / Cavo audio stereo
- Ⓓ USB cable / Câble USB / Cable USB / USB-Kabel / Cavo USB
- Ⓔ S-video cable / Câble S-vidéo / Cable de vídeo S / S-Videokabel / Cavo S-Video
- Ⓕ Audio/video cable / Câble audio/vidéo / Cable de audio/vídeo / Audio-/Videokabel / Cavo audio/video

Connecting with a computer / Raccordement à un ordinateur / Conexión con ordenador / Anschließen an einen Computer / Collegamento a un computer

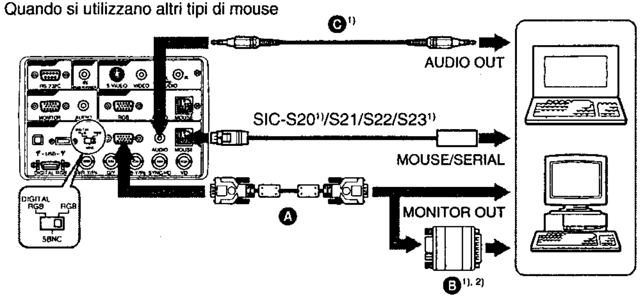
- Using a USB equipment (e.g., USB mouse) / Utilisation d'un appareil USB (p.ex., souris USB) / Empleo de un equipo USB (p. ej., un ratón USB) / Verwenden eines USB-Geräts (z. B. einer USB-Maus) / Uso di un dispositivo USB (ad esempio un mouse USB)



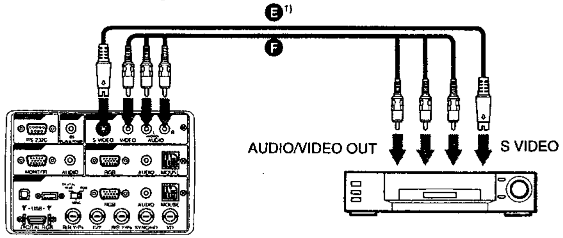
Other USB equipment / Autre appareil USB / Otro equipo USB / Anderes USB-Gerät / Altro apparecchio USB

System Requirement / Configuration requise / Requisito de sistema / Systemvoraussetzung / Requisiti di sistema

- When using other type of mouse / Si vous utilisez un autre type de souris / Si utiliza otro tipo de ratón / Wenn Sie einen anderen Maustyp verwenden / Quando si utilizzano altri tipi di mouse



Connecting with a VCR / Raccordement à un magnétoscope / Conexión con una vídeograbadora / Anschließen an einen Videorecorder / Collegamento a un videoregistratore

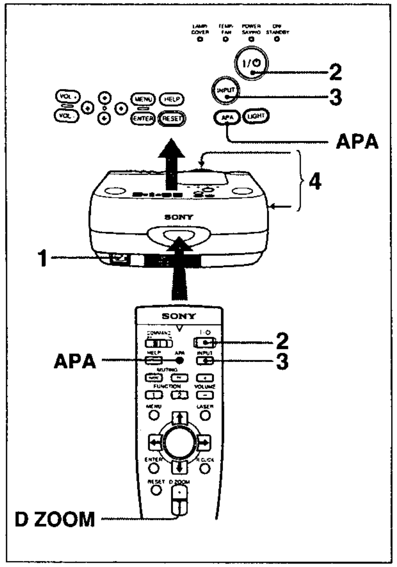


1) not supplied / non fourni / no suministrado / nicht mitgeliefert / non in dotazione
2) Only connecting to the Macintosh / Raccordement au Macintosh uniquement / Conexión únicamente al sistema Macintosh / Nur zum Anschließen an den Macintosh / Collegamento solo al Macintosh

Projection Distances / Distances de projection / Distancias de proyección / Projektionsentfernungen / Distanze di proiezione

Screen size(inchies) / Taille de l'écran (pouces) / Tamaño de la pantalla (pulgadas) / Projektionsschirmgröße (Zoll) / Dimensione schermo (pollici)	Distance (m (feet)) / Distance (m (pieds)) / Distancia (m (pies)) / Abstand (m) /Distanza (m)
40	1490–1820 (58 3/4–71 3/4)
60	2280–2780 (89 7/8–109 1/2)
80	3060–3740 (120 1/2–147 3/8)
100	3850–4700 (151 5/8–185 1/8)
120	4630–5660 (182 3/8–222 7/8)
150	5810–7100 (228 7/8–279 5/8)
180	6990–8540 (275 1/4–336 3/8)
200	7770–9500 (306–374 1/8)
250	9740–11900 (383 5/8–468 5/8)
300	11700–14300 (460 3/4–563 1/8)

Basic Operation / Opération de base / Operación básica / Grundfunktion / Operazione di base



English

1 After all equipment is connected completely, plug the AC power cord into the wall outlet.

2 Press the I / ⏻ key to turn on the projector.

3 Turn on equipment connected to the projector. Press the INPUT key to select "INPUT-A", "INPUT-B", "S-VIDEO" or "VIDEO".

4 Turn the zoom ring to adjust the size of the picture, and turn the focus ring to adjust the focus.

To adjust the picture of computer automatically

Press the APA (Auto Pixel Alignment) key.

To correct the trapezoid

Correct the trapezoid of the picture by changing the DIGIT KEYSTONE value in the INSTALL SETTING menu.

To enlarge the image

Press the D ZOOM + key. Using an arrow key (↑/↓/←/→), move the icon to the point you want to enlarge. Press the D ZOOM + key again.

Français

1 Après que tous les appareils ont été complètement raccordés, branchez le câble d'alimentation sur une prise murale.

2 Appuyez sur la touche I / ⏻ pour mettre le projecteur sous tension.

3 Mettez sous tension l'appareil raccordé au projecteur. Appuyez sur la touche INPUT pour sélectionner "ENT.A", "ENT.B", "S-VIDEO" ou "VIDEO".

4 Tournez la bague de zoom pour ajuster la taille de l'image et tournez la bague de mise au point pour ajuster la mise au point.

Pour régler automatiquement l'image de l'ordinateur

Appuyez sur la touche APA (alignement automatique des pixels).

Pour corriger la distorsion trapézoïdale

Corrigez la distorsion trapézoïdale en changeant la valeur TRAPEZE NUMER dans le menu REGL. INSTAL.

Pour agrandir l'image

Appuyez sur la touche D ZOOM +. A l'aide d'une touche fléchée (↑/↓/←/→), déplacez l'icône à l'endroit que vous voulez agrandir. Appuyez de nouveau sur la touche D ZOOM +.

Español

1 Una vez conectados todos los equipos por completo, enchufe el cable de alimentación de CA en la toma mural.

2 Pulse la tecla I / ⏻ para encender el proyector.

3 Encienda el equipo conectado al proyector. Pulse la tecla INPUT para seleccionar "ENTRAD A", "ENTRAD B", "S-VIDEO" o "VIDEO".

4 Gire el anillo de zoom para ajustar el tamaño de la imagen, y gire el anillo de enfoque para ajustar el enfoque.

Para ajustar la imagen del ordenador automáticamente

Pulse la tecla APA (Alineación automática de píxeles).

Para corregir la distorsión trapezoidal

Corrija la distorsión trapezoidal de la imagen cambiando el valor de DIST TRAP DIG del menú AJUSTE INST.

Para ampliar la imagen

Pulse la tecla D ZOOM +. Mediante una tecla de flecha (↑/↓/←/→), desplace el icono hasta el punto que desee aumentar. Vuelva a pulsar la tecla D ZOOM +.

Deutsch

1 Wenn alle Geräte vollständig angeschlossen sind, stecken Sie den Stecker des Netzkabels in die Netzsteckdose.

2 Schalten Sie den Projektor mit der Taste I / ⏻ ein.

3 Schalten Sie die an den Projektor angeschlossenen Geräte ein. Wählen Sie mit der Taste INPUT "EING.A", "EING.B", "S-VIDEO" oder "VIDEO" aus.

4 Stellen Sie durch Drehen des Zoom-Rings die Größe des Bildes und durch Drehen des Fokussierrings den Fokus ein.

So lassen Sie das Bild des Computers automatisch einstellen

Drücken Sie die Taste APA (automatische Pixelausrichtung).

So korrigieren Sie die Trapezverzerrung

Korrigieren Sie die Trapezverzerrung des Bildes, indem Sie den Wert für TRAPEZ DIGITAL im Menü ANFANGSWERTE ändern.

So vergrößern Sie das Bild

Drücken Sie die Taste D ZOOM +. Stellen Sie das Symbol mit einer der Pfeiltasten (↑/↓/←/→) auf die zu vergrößernde Stelle. Drücken Sie die Taste D ZOOM + erneut.

Italiano

1 Dopo avere collegato saldamente tutti gli apparecchi, inserire l'alimentatore CA nella presa di rete.

2 Per accendere il proiettore, premere il tasto I / ⏻.

3 Accendere l'apparecchiatura collegata al proiettore. Premere il tasto INPUT per selezionare "INGRE A", "INGRE B", "S-VIDEO" o "VIDEO".

4 Per regolare le dimensioni dell'immagine, ruotare il regolatore dello zoom, per regolare la messa a fuoco, ruotare il regolatore della focalizzazione.

Per regolare automaticamente l'immagine del computer

Premere il tasto APA (Allineamento automatico dei pixel).

Per correggere la distorsione dell'immagine

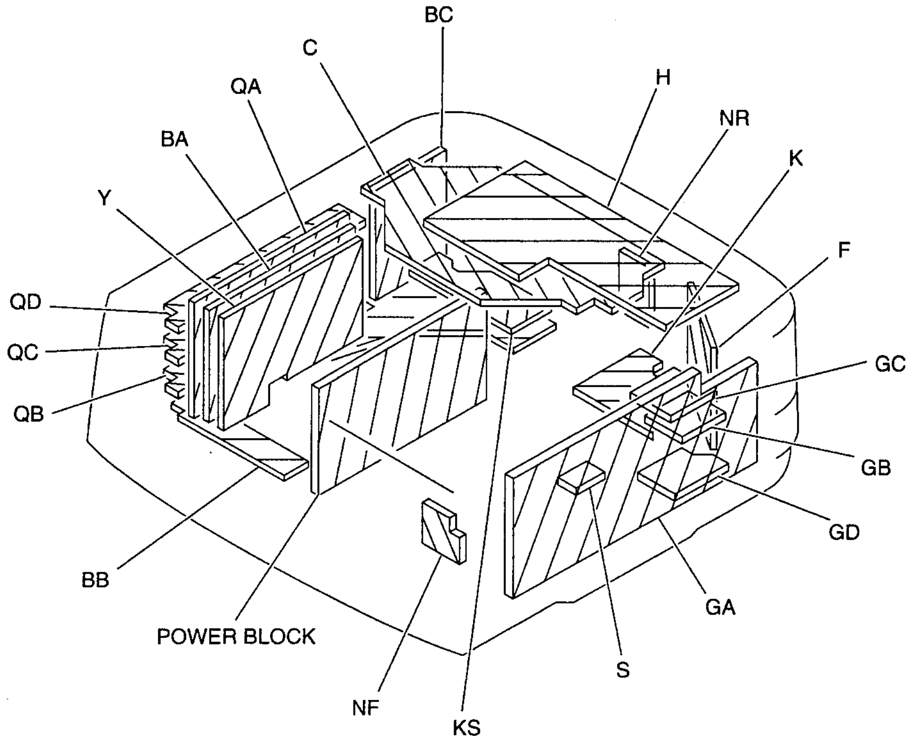
Correggere l'immagine distorta modificando il valore di KEYST. DIGIT. nel menu IMPOST. INST.

Per ingrandire l'immagine

Premere il tasto D ZOOM +. Utilizzando uno dei tasti direzionali, (↑/↓/←/→), spostare l'icona sul punto che si desidera ingrandire, quindi premere di nuovo il tasto D ZOOM +.

Section 2
Service Informations

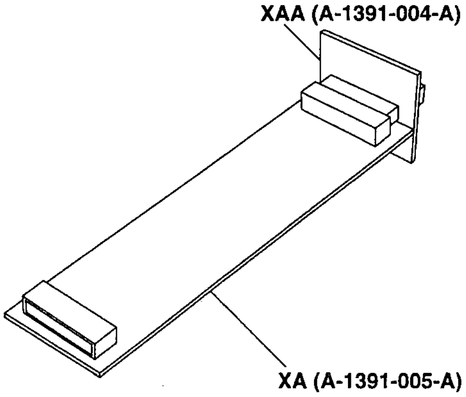
2-1. Circuit Boards Location


BC
C
QA
H
NR
BA
K
Y
F
QD
QC
GC
QB
GB
GD
BB
GA
POWER BLOCK
S
NF
KS

2-2. Servicing Tools

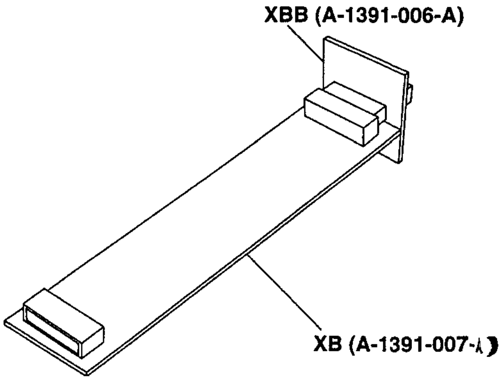
2-2-1. XA, XAA Extension Boards (70P)

- For Y board and QA board
  (QA board use 2 pieces of XA and XAA board.)

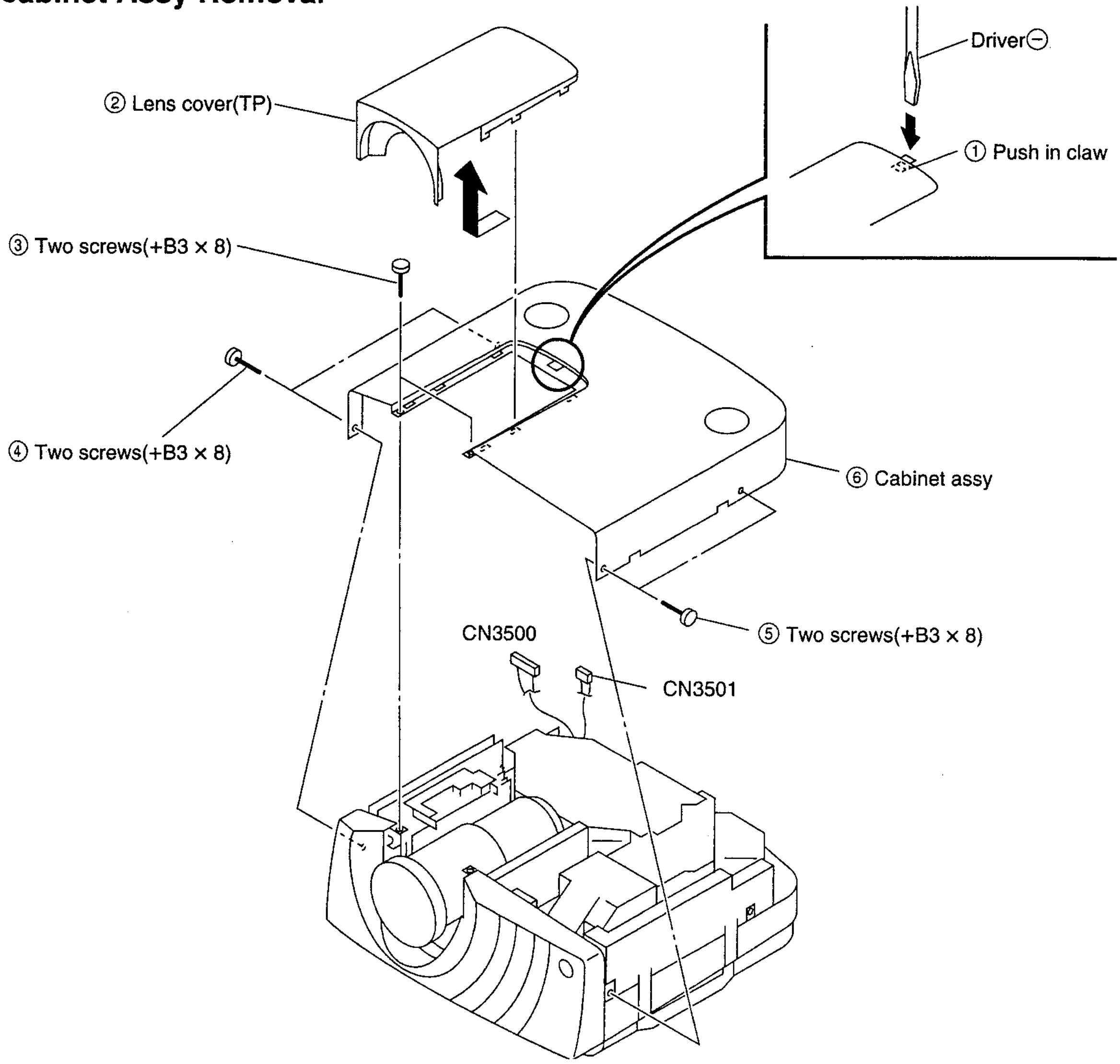

XAA (A-1391-004-A)
XA (A-1391-005-A)

2-2-2. XB, XBB Extension Boards (50P)

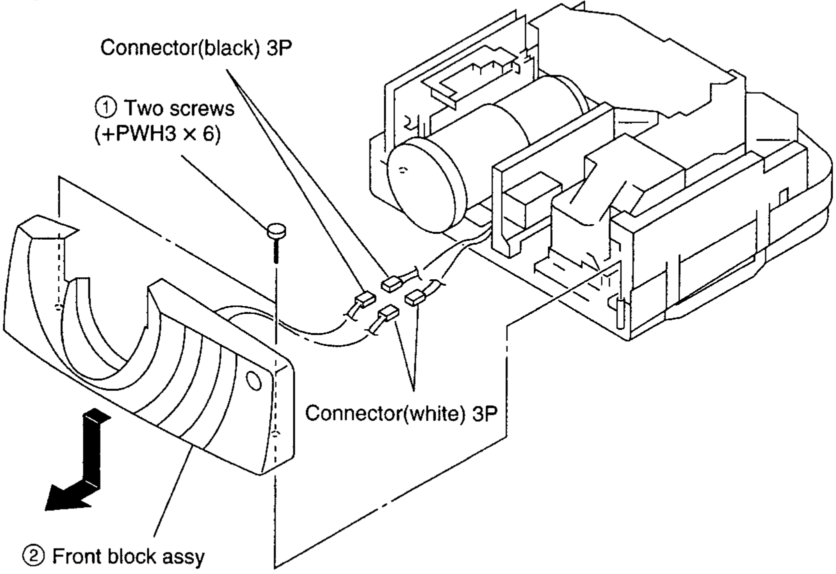
- For BA board.


XBB (A-1391-006-A)
XB (A-1391-007-A)

2-3. Cabinet Assy Removal

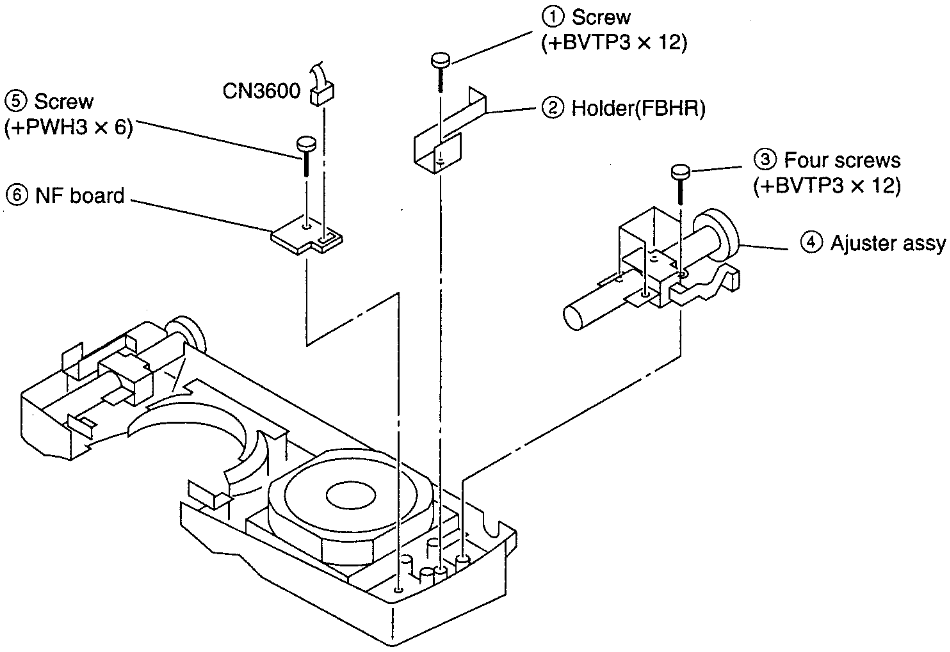

② Lens cover(TP)
Driver⊖
① Push in claw
③ Two screws(+B3 × 8)
④ Two screws(+B3 × 8)
⑥ Cabinet assy
⑤ Two screws(+B3 × 8)
CN3500
CN3501

2-4. Front Block Assy Removal

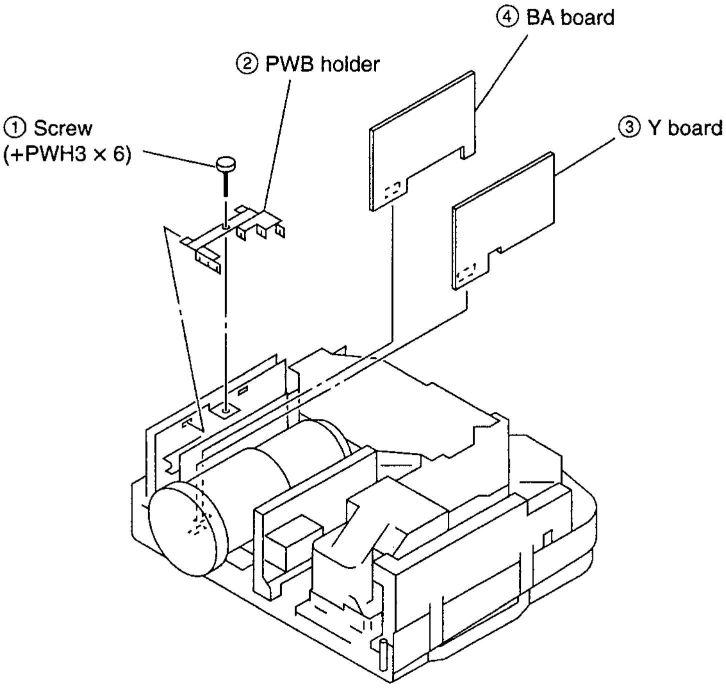

Connector(black) 3P
① Two screws
(+PWH3 × 6)
Connector(white) 3P
② Front block assy

2-5. NF Board Removal

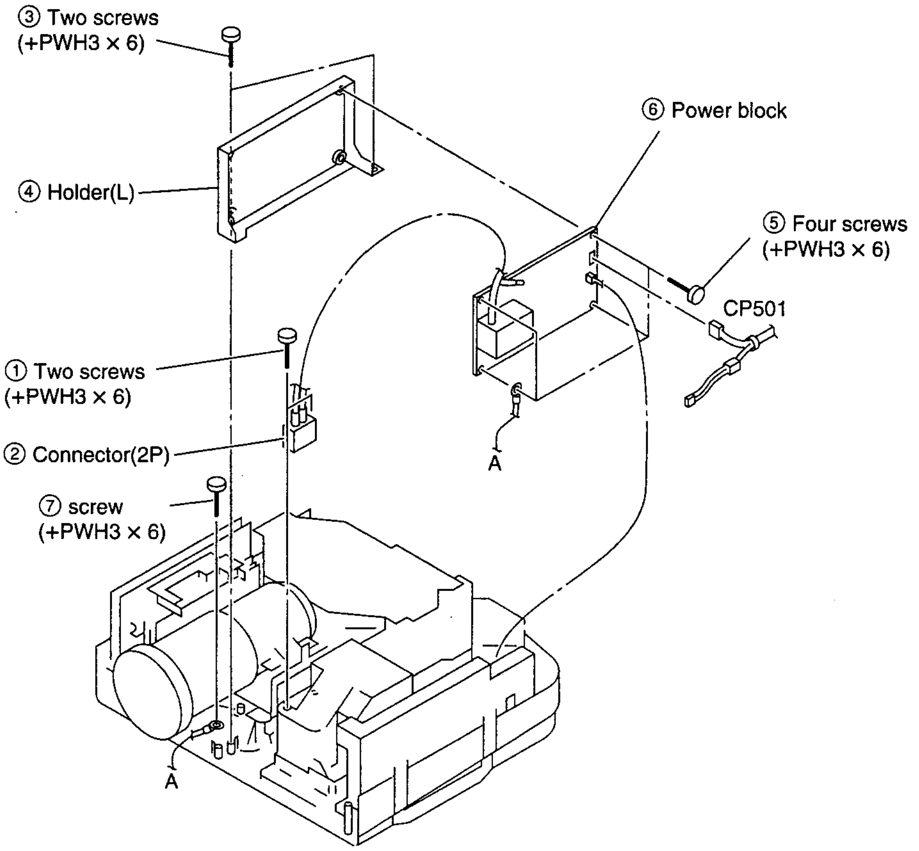
- Remove the Front Block Assy (Refer to 2-4.)..


① Screw
(+BVTP3 x 12)
⑤ Screw
(+PWH3 x 6)
CN3600
② Holder(FBHR)
③ Four screws
(+BVTP3 x 12)
⑥ NF board
④ Ajuster assy

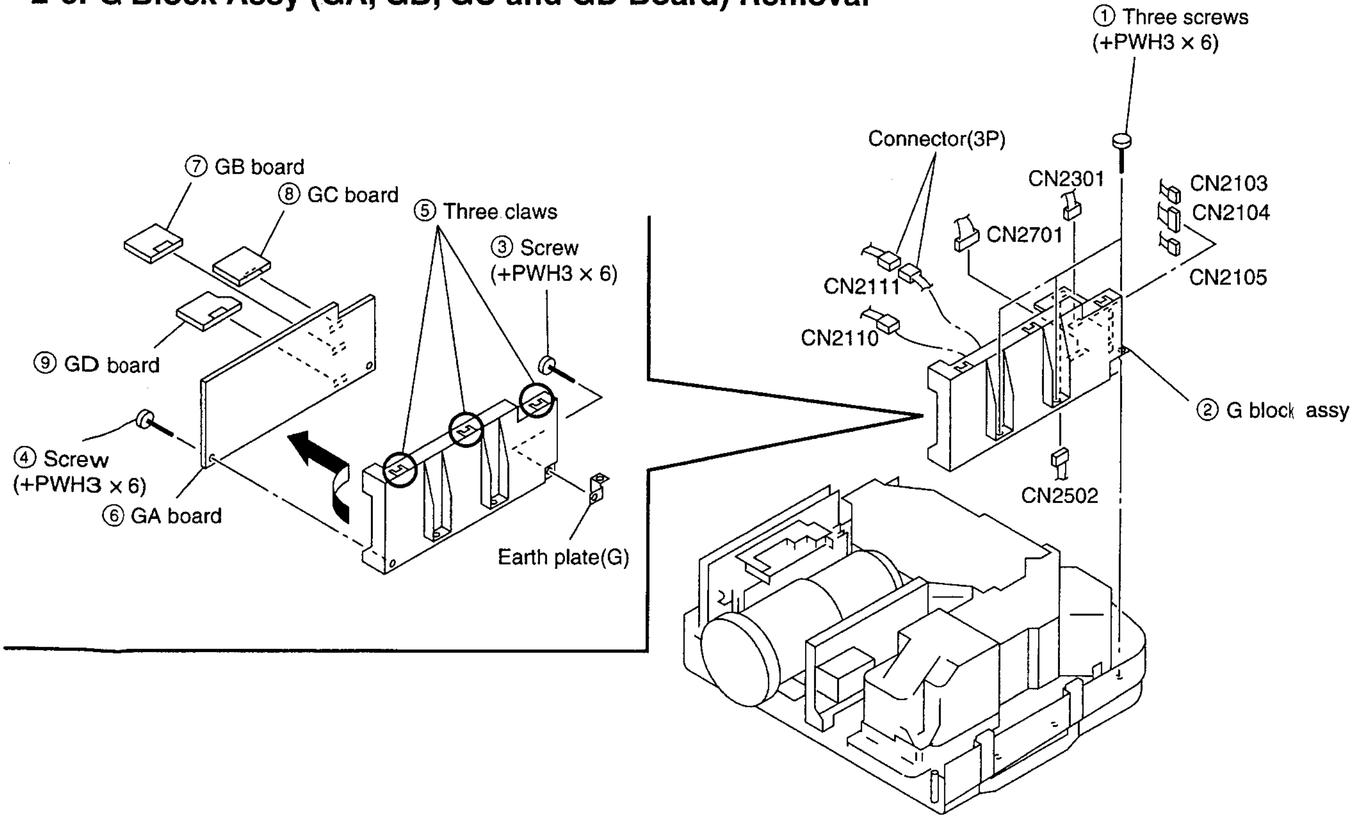
2-6. BA and Y Boards Removal


④ BA board
② PWB holder
① Screw
(+PWH3 x 6)
③ Y board

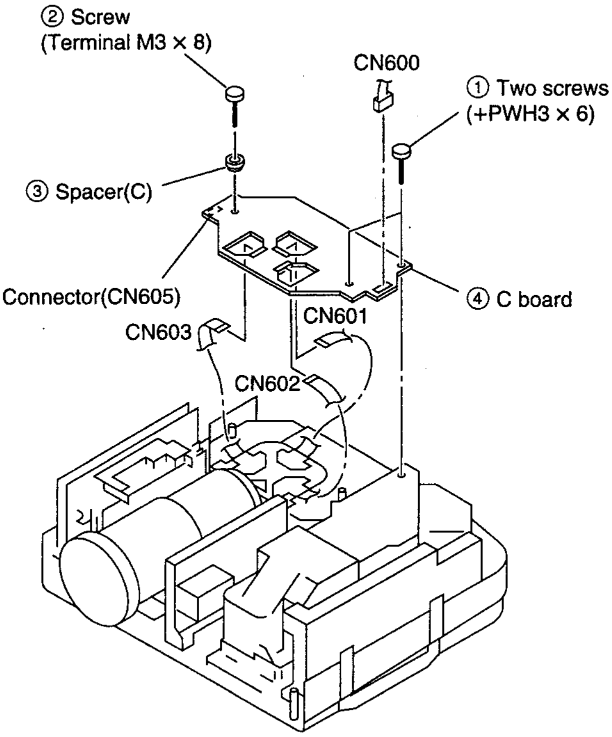
2-7. Power Block Removal


③ Two screws
(+PWH3 x 6)
⑥ Power block
④ Holder(L)
⑤ Four screws
(+PWH3 x 6)
CP501
① Two screws
(+PWH3 x 6)
② Connector(2P)
A
⑦ screw
(+PWH3 x 6)
A

2-8. G Block Assy (GA, GB, GC and GD Board) Removal

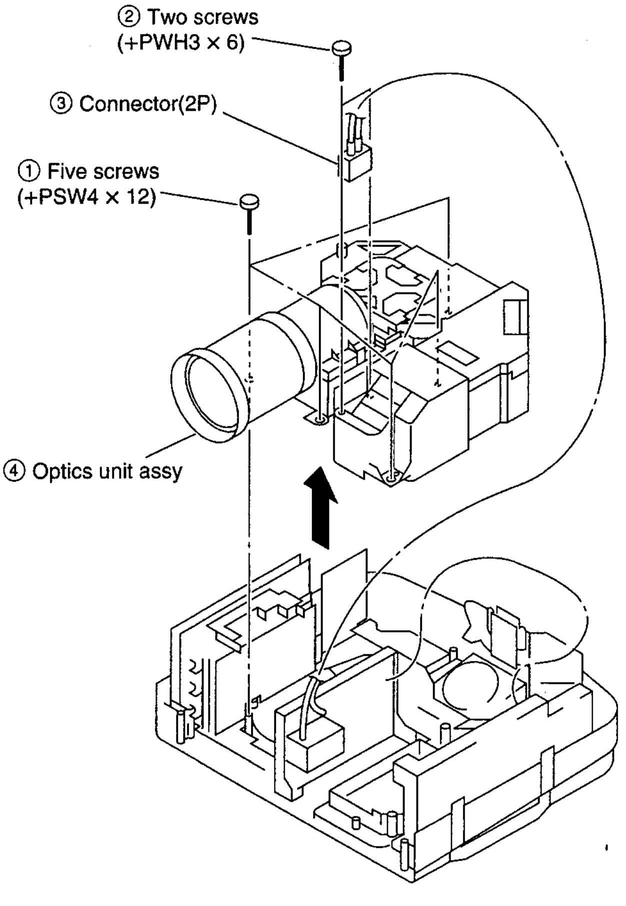

① Three screws
(+PWH3 x 6)
Connector(3P)
⑦ GB board
⑧ GC board
⑤ Three claws
③ Screw
(+PWH3 x 6)
CN2301
CN2103
CN2104
CN2701
CN2105
CN2111
CN2110
⑨ GD board
② G block assy
④ Screw
(+PWH3 x 6)
⑥ GA board
Earth plate(G)
CN2502

2-9. C Board Removal


② Screw
(Terminal M3 × 8)
CN600
① Two screws
(+PWH3 × 6)
③ Spacer(C)
Connector(CN605)
④ C board
CN601
CN603
CN602

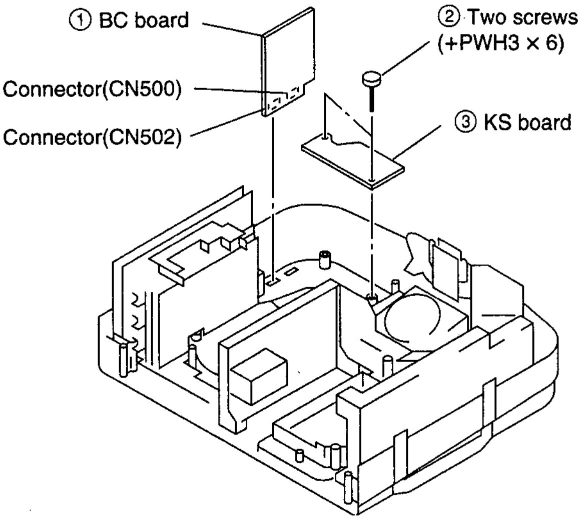
2-10. Optics Unit Assy Removal

- Remove the C Board (Refer to 2-9.).


② Two screws
(+PWH3 × 6)
③ Connector(2P)
① Five screws
(+PSW4 × 12)
④ Optics unit assy

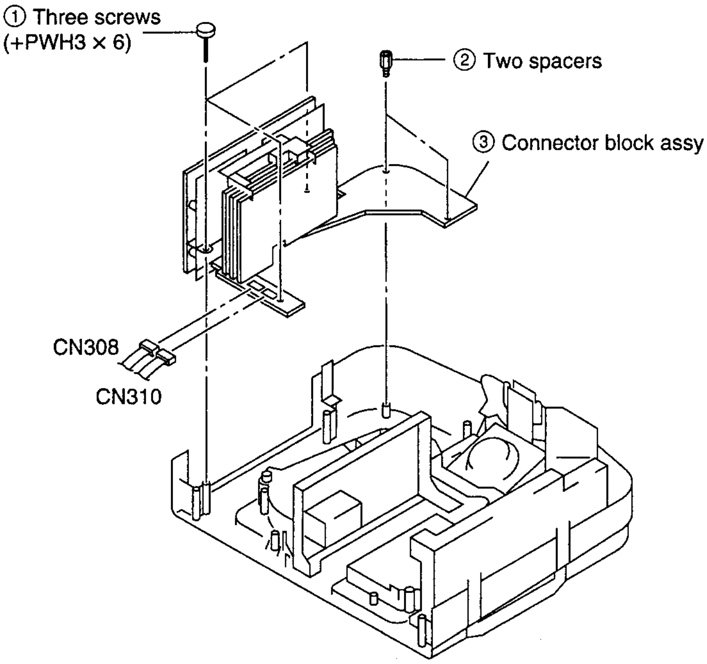
2-11. BC and KS Boards Removal

- Remove the Optics Unit (Refer to 2-10.).

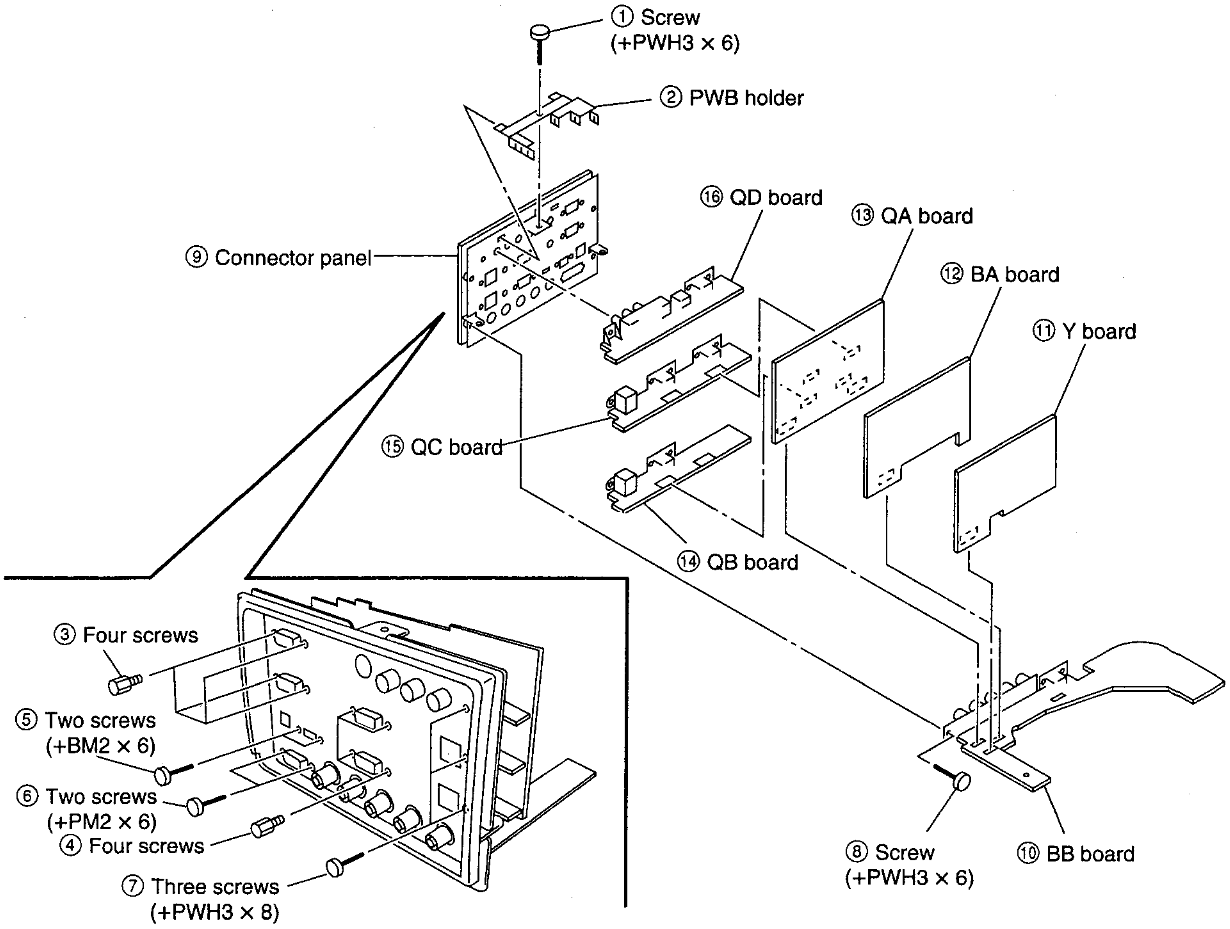

① BC board
Connector(CN500)
Connector(CN502)
② Two screws
(+PWH3 x 6)
③ KS board

2-12. Connector Block Assy Removal

- Remove the KS Board (Refer to 2-11.).

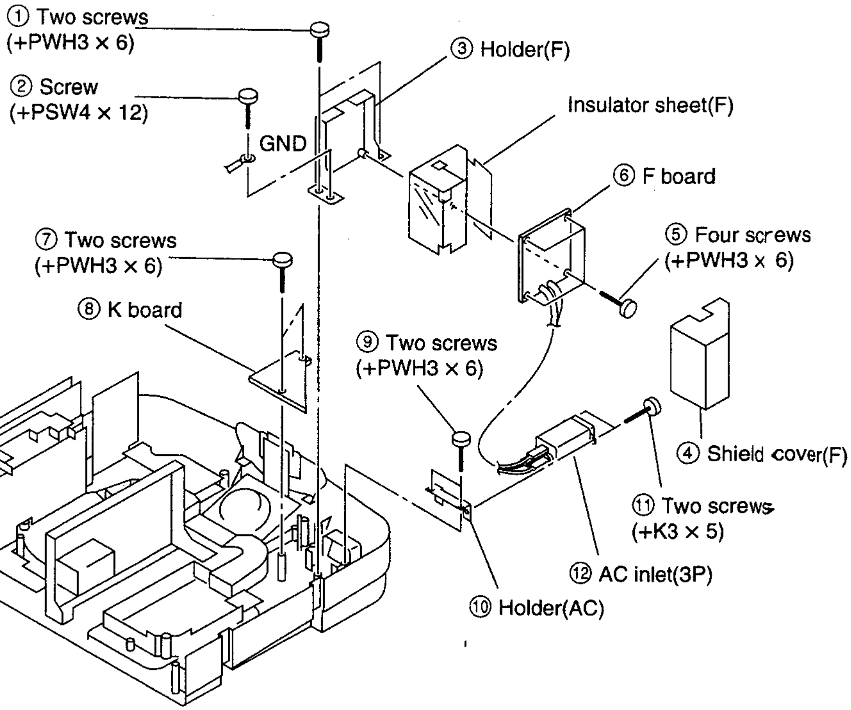

① Three screws
(+PWH3 x 6)
② Two spacers
③ Connector block assy
CN308
CN310

2-13. BB, QA, QB, QC and QD Boards Removal

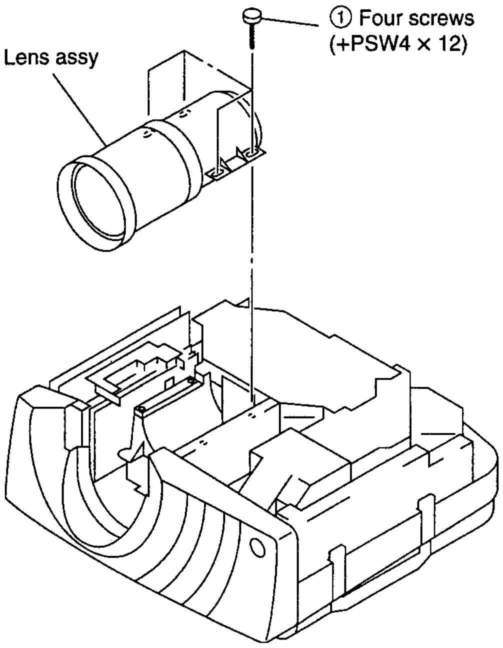

① Screw
(+PWH3 x 6)
② PWB holder
⑯ QD board
⑬ QA board
⑨ Connector panel
⑫ BA board
⑪ Y board
⑮ QC board
⑭ QB board
③ Four screws
⑤ Two screws
(+BM2 x 6)
⑥ Two screws
(+PM2 x 6)
④ Four screws
⑦ Three screws
(+PWH3 x 8)
⑧ Screw
(+PWH3 x 6)
⑩ BB board

2-14. F, K Board and AC Inlet Removal

- Remove the G Block Assy (Refer to 2-8.).
- Remove the Optics Unit (Refer to 2-8.).

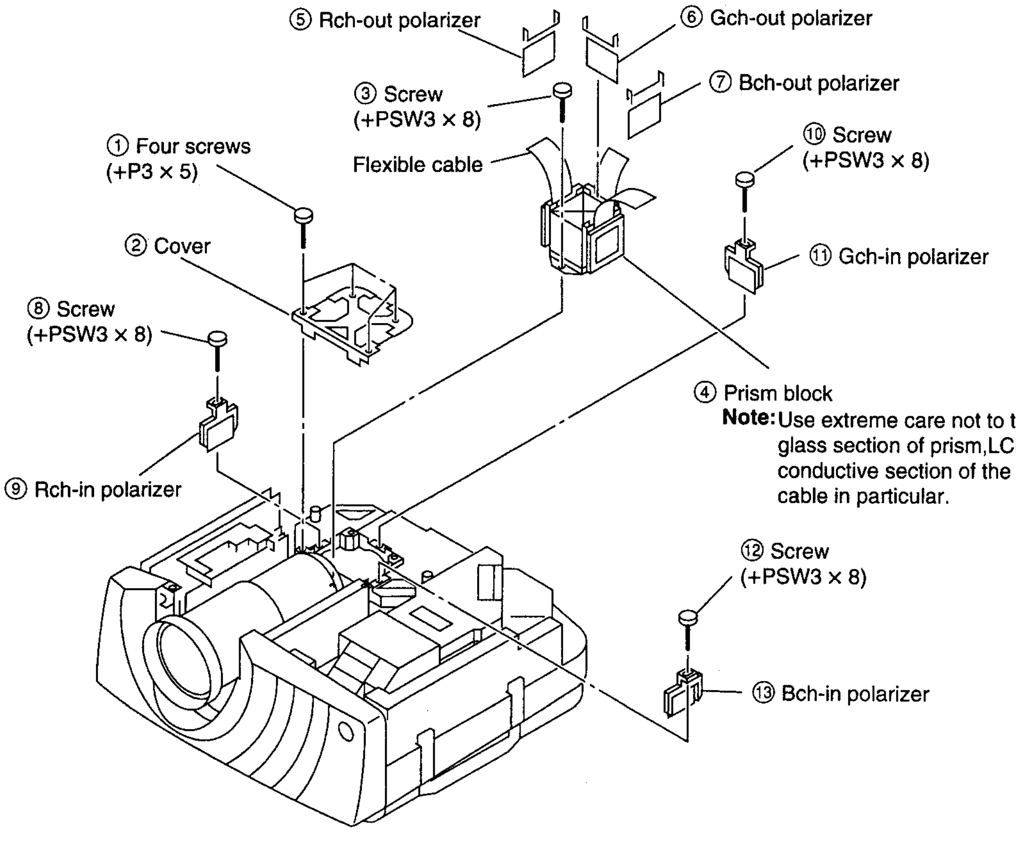

① Two screws
(+PWH3 x 6)
③ Holder(F)
② Screw
(+PSW4 x 12)
Insulator sheet(F)
GND
⑥ F board
⑦ Two screws
(+PWH3 x 6)
⑤ Four screws
(+PWH3 x 6)
⑧ K board
⑨ Two screws
(+PWH3 x 6)
④ Shield cover(F)
⑪ Two screws
(+K3 x 5)
⑫ AC inlet(3P)
⑩ Holder(AC)

2-15. Lens Assy Removal


① Four screws
(+PSW4 × 12)
② Lens assy

2-16. Prism Block and Polarizer Removal

- Remove the C Board (Refer to 2-9.).


⑤ Rch-out polarizer
⑥ Gch-out polarizer
③ Screw
(+PSW3 × 8)
⑦ Bch-out polarizer
① Four screws
(+P3 × 5)
Flexible cable
⑩ Screw
(+PSW3 × 8)
② Cover
⑪ Gch-in polarizer
⑧ Screw
(+PSW3 × 8)
④ Prism block
⑨ Rch-in polarizer
⑫ Screw
(+PSW3 × 8)
⑬ Bch-in polarizer

Note: Use extreme care not to touch the glass section of prism,LCD,and conductive section of the flexible cable in particular.

2-17. Note on Lamp Breakage

Note 1

Ehen the lamp broken, its broken pieces may remain inside the unit.
Take off all the pices with gloves using care about a hand cut, before replacing.
Then, the fly-eye lens may be cloudy at the lamp breakage, at that time wipe the suface of the lens with an authorized lens cleaner kit.

- Cleaner (4-075-337-01)
- Wiper (4-075-338-01)

Note 2

Under the consideration of lamp's reliability, set the lamp mode to "LOW" during repairing the unit with the cabinet opening and the lamp on.

Section 3
Theory of Operation

3-1. BA Board

This circuit mainly performs the following processes.

a. VIDEO (C-VIDEO, Y/C, component), HDTV (Y PB PR) image processing
b. Sync separation processing

3-1-1. Main IC Functions

1. **CXD2064 (IC221), digital comb filter**
   Performs NTSC3.58, PAL443 3-line applicable digital Y/C separation.
   The operating clock (fsc) output from Pin 46 of CXA2123 (IC101) is input to Pin 37. The VIDEO signal input from Pin 2 is digitally processed by this clock. The Y signal is then output from Pin 9 and the C signal from Pin 7.

2. **CXA2123 (IC101), chroma decoder and sync processing**
   Chroma decoder/sync processing IC controlled by the I2C bus. It can process C-VIDEO signals and Y/C signals. The C-VIDEO signal is input to Pin 1, the Y signal to Pin 44, and the C signal to Pin 43 to automatically differentiate between NTSC3.58, NTSC4.43, PAL, PAL-M, PAL-N, SECAM, and B/W. When identified as NTSC3.58 or PAL, it supplies a clock to IC221 (CXD2084) to perform Y/C separation. Y/C separation is performed in this IC when other systems are identified. The signals are then converted to the Y/U/V signals, and the Y signal is output from Pin 21, the Cb signal from Pin 22, and the Cr signal from Pin 23.
   In sync processing, the C-VIDEO/Y signal input is separated into H and V, and the H-sync signal is output from Pin 9 while the V-sync signal is output from Pin 4. (For the 15 kHz COMPONENT and RGB signals, only C.SYNC is input from Pin 19.)

3. **CXA2101 (IC1601), HD interface**
   The HD interface is controlled by the I2C bus. It turns ON/OFF user-controlled COLOR, HUE, SHARPNESS, and DYNAMIC PICTURE functions for signals input, performs detection axis settings, and improves chroma transient, and converts signals to R, G, and B signals then outputs them.
   When the DTV (YpbPr, GBR) is input, the Y/Pb/Pr signal G/B/R are input to Pins 11, 10, and 9 respectively. COMPONENT is input to Pin 5 (Y), 4 (Cb), and 3 (Cr). The Video signal is decoded by IC101, and then input to Pins 69 (Y), 68 (Cb), and 67 (Cr).
   They are then subject to various controls, converted to R, G, and B signals, and output from Pins 35 (R), 37 (G), and 39 (B).

3-1-2. Signal Path

1. **Path of VIDEO signal**
   The VIDEO and Y/C signals input from CN102 are input to Pins 1, 44, and 43 of IC101 via buffers Q107 (composite video), Q109 (Y), and Q101 (C).
   For PAL and NTSC3.58, the signal amplified by two times by IC101 is output from Pin 3, passed through the low pass filter composed of Q120, L111, L110, C211, C210, and C143, input to Pin 2 of IC221 (comb filter), Y/C separated, output from Pins 9, Y, 7, and C, passed through the low pass filter composed of L112, C215, L113, and C219, after which the Y signal is input to Pin 5 of IC101 and the C signal is input to Pin 7. All other signals are processed in IC101, converted to the Y, U, and V signals, and output from Pins 21 (Y), 22 (B-Y), and 23 (R-Y). They are then input to Pins 69, 68, and 67 of IC102 for the above processing by CXA2101, and output.

2. Path of component (Y/R-Y/B-Y) signal, 15kRGB signal

The component video signal input from CN101 is passed through the buffer Q116/ Q115/Q117, and input to Pins 5 (Y), 4 (Cb), and 3 (Cr). The 15kRGB signal is passed through the same path as the component signal, input to Pins 5 (G), 4 (B), and 3 (R) of IC102 for the above processing by CXA2101, and output.

3. Path of HDTV (Y, PB, PR) signal

The Y/Pb/Pr video signal input from CN101 is input to Pins 11 (Y), 10 (Pb), and 9 (Pr) of IC102 via the buffer Q116/115/117 for the above processing by CXA2101, and output.

3-1-3. Path of SYNC Processing

1. When the VIDEO signal is selected

The signal input to IC101 is sync separated internally, and the H and V SYNC from Pins 9 and 4 are output.

The equivalent pulse of the signal output from Pin 9 is eliminated as it is imposed with PLL. After this, it is input to Pins 65 and 66 of IC102, selected, and output from Pins 29 and 28. The H sync output is reversed by IC259, input to IC256, noise-eliminated, output from Pin 7, waveform-rectified by IC257, and output from CN101.

2. For component signal (15K) and 15kRGB signals

The C SYNC signal rectified by the QA board is input to Pin 19 of IC101. The signal output from Pins 9 and 4 are input to Pin 2 of IC1021. The rest is the same process as for Video signals.

3. When HDTV (YPbPr, GBR), components signals other than 15K are input

The signal input from CN101 is input to Pins 11, 7, and 8 of IC102 in the order of Y/G, H, and V. IC102 automatically determines if the signal is SonG, C.SYNC, or HV separate, and outputs the signal from Pins 29 and 28. The rest is the same process as for Video signals.

3-1-4. Clamp Pulse Generation Circuit

1. Path of VIDEO, component (Y/R-Y/B-Y) signal, and 15 kRGB signal

The SGP output from Pin 10 of IC101 is waveform-rectified by IC263, input to IC251, subject to selection with the HDTV signal input, output from Pin 1, reversed by IC252, and output from CN101.

2. When HDTV (YPbPr, GBR), component signals other than 15K are input

The H.sync output from Pin 29 of IC102 is reversed by IC259, and then input to IC256.

Clamp pulses are generated by this IC, output from Pin 5, waveform-rectified by IC259 and IC257, input to IC251, selected, and output from CN101.

3-2. BB Board

The BB board inputs the analog RGB signal from the QA board or digital RGB signal (TMSD:Panel Link) from CN300, converts to the VESA60 equivalent XGA signals, superimposes the OSD signal, and outputs to the BC board.

1. Scan Converter

PW*64 (IC303) is used as the scan converter.
This IC incorporates the X86 base CPU core and frame memory SDRAM.
The 4 Mbits (512 KBytes) flash ROM (IC314) is equipped externally as the PROM and 1 Mbit (128 KBytes) SRAM (IC315) as the CPU RAM.

2. The External Data Bus

The external data bus is 16 bits. The CPU operates on 43.333 MHz which is obtained by dividing the 130 MHz memory clock by 3.

3. The External Flash RCM

The program of the external flash ROM can be rewritten by connecting a board for converting the RS232C level to CN312. In this case, the EXTSW must be connected to GND to switch the communication line, and the WDEN must be connected to GND to stop the operations of the watch dog timer.

4. PW*64

PW*64 normally operates as a sub CPU according to the commands from the main CPU on the Y board. The commands are sent by asynchronous serial communication using TXD/RXD.
The OSD data itself is stored in IC314 which is the PW*64 memory. Based on the commands from the main CPU, the PW*64 selects the contents displayed and superimposes.
To realize high-speed signal switching operations, the MUTE signal is directly sent to PW264.
The INTERLACE detection signal is directly sent from PW264 to Y.

5. PW264

Since PW264 is a X86 based CPU, the RESET signal must be input at a HIGH level.
For this reason, the open drain RESET signal of IC306 is reversed by the Schmidt inverter (IC317).

6. Memory Clock

The 130 MHz memory clock is obtained by multiplying the X300 21.667 MHz by six times.
The internal SDRAM operates on this frequency.

7. Internal Core

As the internal core operates on 2.5V, D3.3V is stepped down to 2.5V and supplied by IC312.

3-3. BC Board

The BC board controls the contrast, bias, W/B, etc. of the linear digital signals from the BBC board, then performs gamma correction by LUT (Look Up Table) and 3D gamma correction which corrects in planes according to the gradation, converts the signals from digital to analog before outputting them.

1. IC502 (CXD9512Q)

IC502 (CXD9512Q) has a 48 bit 2-pixel series input and 30 bit (10bit/pixel) straight output. Therefore a 2 clock whose phase matches the input clock is required.

2. IC501

IC501 is an IC generating 2 clock corresponding to the frequency diffusion. It outputs the same clock as the input to CLKB and the 2 clock to CLKA according to the phase of the input clock.
IC 500 (Pin 1 of IC501) is incorporated to match the timings of the data and clock.

3. IC503

IC503 is a 64 Kbits (8 Kbytes) EEPROM memorizing LUT (Look Up Table) and the 3D gamma data. It exchanges data with IC502 using I^2C signals (slave address is A2).

4. IC511

IC511 generates RESET signals for IC503.

5. IC505

IC505 is a switching buffer for OSD display of PW264 when outputting the internal signals of IC502 in gamma adjustments, etc.
When PW OSD ENA is LOW, DG07 and DGE7 are sent to ODD_YS and EVEN_ YS respectively to control the ON/OFF of the OSD. DR07 and DRE7 are also sent to ODD_YM and EVEN_YM respectively to control the OSD half tone.
When PW OSD ENA is HIGH, both YM and YS are pulled-down to the LOW level by the resistance, and the OSD of this route goes off.

6. IC506

IC506 is a 10-bit D/A converter. It converts gamma corrected digital data to analog signals.
The output when the full-scale (3FFHEX) is input becomes approximately 0.75 Vp-p after termination at 75 Ω of the C board.

7. D500

D500 is an external reference voltage source to improve accuracy. It generates 1.25±2% voltage.
To avoid the effects of the digital circuit and input signal, IC506, D500 receives the supply of analog 5V from the C board.
Other circuits operate on digital 3.3V from the BB board.

8. S500

S500 switches the I^2C signal, writes the LUT data using the I^2C signal from the external tool connected to CN503 so that the operations of IC502 (CXD9512) can be controlled directly.
During normal operations, IC502 is connected to the I^2C line from the Y board and is controlled from the main microprocessor.
The slave address of I^2C of IC502 is 76 Hex.

3-4. C Board

3-4-1. Timing Generator

The following timing pulses are generated from the HSO, VSO, and CLOCK by the CXD9512Q of the BC board and supplied to the C board.
In the C board, all signals are level shifted to 5V and sent via the buffer as well.

HCK1, HCK2: Clock for the H shift register drive of the panel
HST: Start pulse for the H shift register drive of the panel
VCK: Clock for the V shift register drive of the panel
VST: Start pulse for the V shift register drive of the panel
ENB: Enable signal of the gate selection pulse
FRP: Reverses the top and bottom of video signals centering around the reversal pulse and SIG CENT voltage
PRG: Pulse which regulates the width of the first SID level
PCG: Pulse which improves uniformity

RGT: Reverses the left and right of the screen, controls the drive direction of the H shift register
DWN: Reverses the left and right of the screen, controls the drive direction of the V shift register

3-4-2. LCD Driver Control Pulse

INV CONT: Reverses the polarity of the CLK for MCLK
DLY CONT: Adjusts the phase of the CLK for the MCLK in the 180° range
These pulses optimize the sampling phase of the video signal.

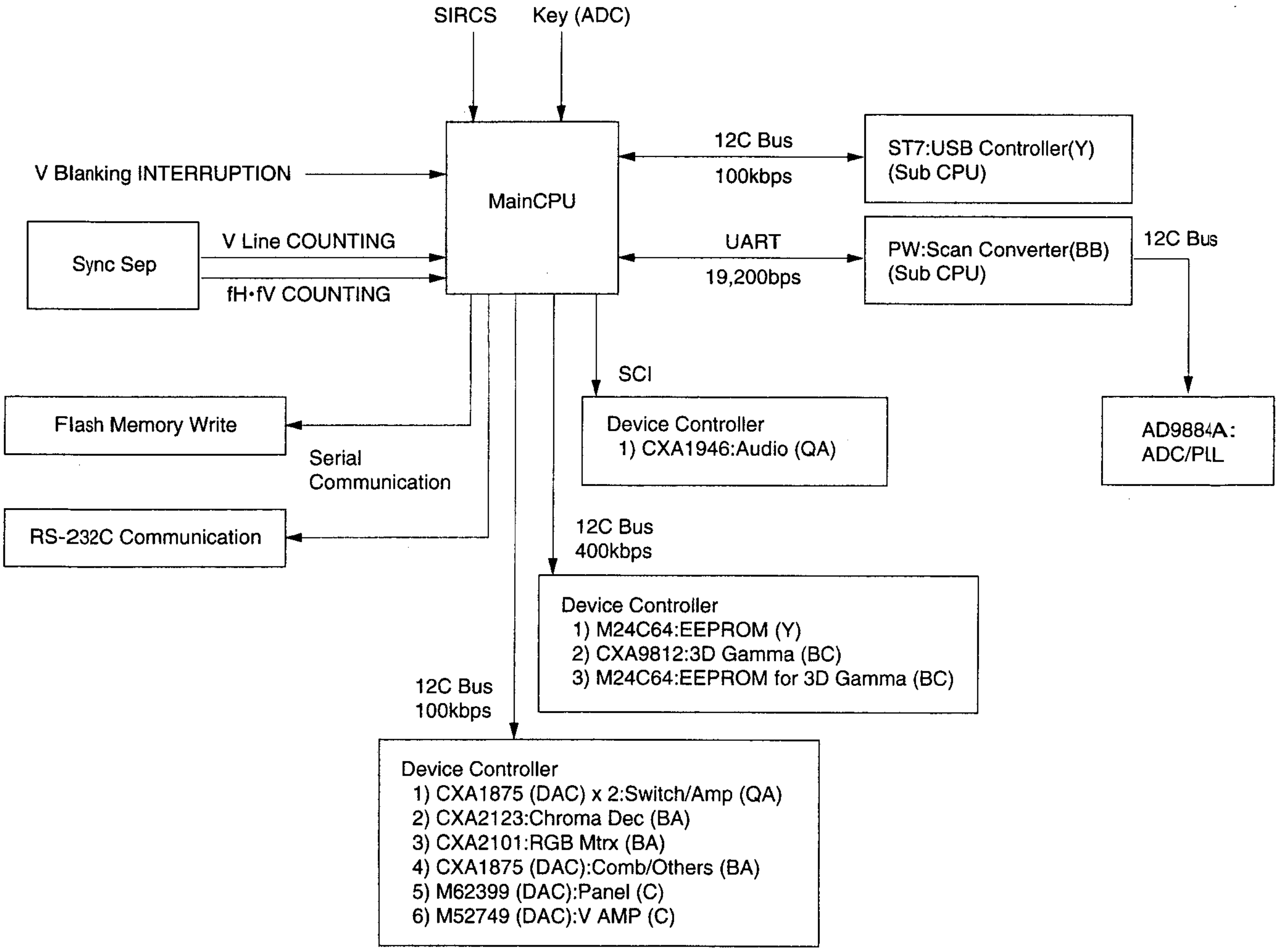
POSCONT1, 2: Adjusts the position of the 12 outputs for the video input signal.
Sets the optimum timing for inputting signals to the LCD panel through 16 different combinations of the output.

3-5. Y Board

The main circuits of the Y board include the microprocessor peripheral circuit, USB circuit, and IrDA circuit.

3-5-1. Microprocessor peripheral circuit

The controller of the projector is mainly composed of the Main MPU, EEPROM, and power supply monitoring IC.


SIRCS
Key (ADC)
V Blanking INTERRUPTION
MainCPU
12C Bus
100kbps
ST7:USB Controller(Y)
(Sub CPU)
Sync Sep
V Line COUNTING
fH•fV COUNTING
UART
19,200bps
PW:Scan Converter(BB)
(Sub CPU)
12C Bus
SCI
Flash Memory Write
Serial Communication
Device Controller
1) CXA1946:Audio (QA)
AD9884A:
ADC/PLL
RS-232C Communication
12C Bus
400kbps
Device Controller
1) M24C64:EEPROM (Y)
2) CXA9812:3D Gamma (BC)
3) M24C64:EEPROM for 3D Gamma (BC)
12C Bus
100kbps
Device Controller
1) CXA1875 (DAC) x 2:Switch/Amp (QA)
2) CXA2123:Chroma Dec (BA)
3) CXA2101:RGB Mtrx (BA)
4) CXA1875 (DAC):Comb/Others (BA)
5) M62399 (DAC):Panel (C)
6) M52749 (DAC):V AMP (C)

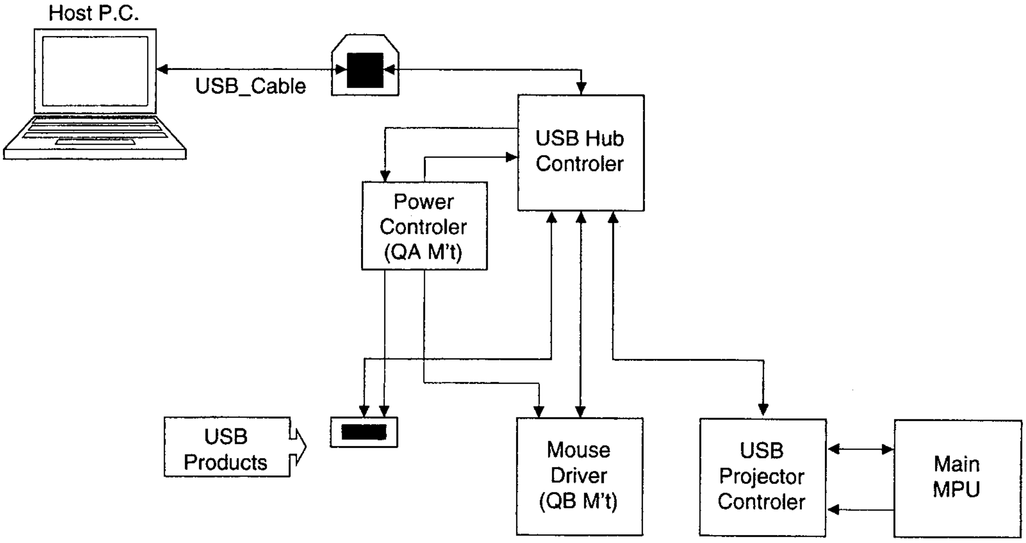
1. **Main MPU: IC3204 (HD64F2633TE)**
   16-bit, 1-chip microcomputer.
   The operating frequency is ø =24.576 MHz which is the 12.288 MHz frequency supplied from the external crystal oscillator (X3200) multiplied by two times in the internal PLL.
   The memories incorporated are the 256 Kbytes FLASH-ROM and 16 Kbytes RAM.
   The Table Main MPU Terminal Functions list the terminal functions of the main MPU and details of the external device control.

2. **EEPROM: IC3203 (M24C64-WMN)**
   64 Kbits EEPROM controlled by the 400 kHz IC.
   Stores the adjustment values of the projector.

3. **Power supply monitoring ICs: IC3201, IC3202 (S-80842, S-80828)**
   The main CPU operates on the Sub+5V and Sub+3.3V power supply.
   IC3201#1 monitors the Sub+5V while IC3202#1 monitors sub+3.3V using their respective threshold values of 4.2V and 2.8V.
   When below these threshold values, the reset signal (active = low) is output from #2 of the monitoring IC, and input to the main MPU reset input terminal (IC3204 #71).
   The CPU is reset by this external reset signal, or the internal reset signal by the WDT (watch dog timer) in the MPU.

3-5-2. USB Circuit

VPL-PX30 corresponds to the USB communication as an interface of the personal computer.
The USB circuit mounts the USB hub controller IC and USB projector controller IC in the Y board.
The USB has a tree structure as shown in the figure below.



USB Block

1. **USB Hub Controller IC:IC3303 (uPD72012)**
   The USB communication (US+, US−) from the personal computer is an IC relaying to the USB device connected to the lower level.
   When connected to the personal computer with a USB cable, +5V (VBUS) is supplied from the personal computer, the Q3307 base becomes high, Q3307 turns ON, the Q3306 base becomes low, Q3306 turns ON, and the Q3306 collector voltage≒3.3V is supplied as the Vcc of IC3303.
   When this IC operates normally, the enable signal (active; low) is output to the device in the lower level connected by the down stream (DS) 1, 2, and 3 from #40, #41, and #42.

2. USB Projector Controller IC: IC3304 ST72T36

In the USB communication between the personal computer and main MPU of the projector, the enable signal: Low (IC3303;#42) of the microprocessor cable hub for performing protocol conversion (USB-IC) is input to the Q3310 base, Q3310 goes OFF, this IC#8 becomes high, and reset is canceled.

The projector control signal executed by the application projector station for the projector on the personal computer is input to IC31 and IC32 via the HUB (IV3303). This signal is analyzed and sent to the main MPU by IIC (#24, #28).

Basically, this IC is the master while the main MPU is the salve.

To send the projector information (input signals, etc.) to the personal computer, the main MPU converts the signal line USB REQ to Low. When this signal is input to #7, this IC requests for projector information using IIC to the main MPU.

3. IrDA Circuit

The remote control signal (IrDA) received by the infrared photo-sending unit (NF/NR M't) in front and at the back of the projector is input to the IrDA filter IC (IC3301) (NF;#2, NR;#3). In IC3301, the photo-sensing unit effective signal (NF;#7, NR;#6) by the main MPU is enabled = low, and the signal determined as a useful IrDA signal is output from #5. While it is input as the SIRCS signal to the main MPU via the SIRCS circuit (QD), it is input to #1 of IC3302 (#2 is fixed at low), the reverse signal is output from #7, input to #2 and 6 of IC3002, and #7:IrDA, #3:IrDB are output to the QB board and QC board,

If INPUT-A is selected, the control signal mouse A/B becomes high by the main MPU, and consequently, #1 of IC3002 becomes high (#5:Low), the IrDA signal is output only from #7, and #3 is prohibited.

3-5-3. Memory

Memory structure of VPL-PX20/30 series is based on the 600 series, and it is composed of the following five memory blocks.

1. Set memory
2. Status memory
3. Channel memory
4. Chroma memory
5. W/B memory

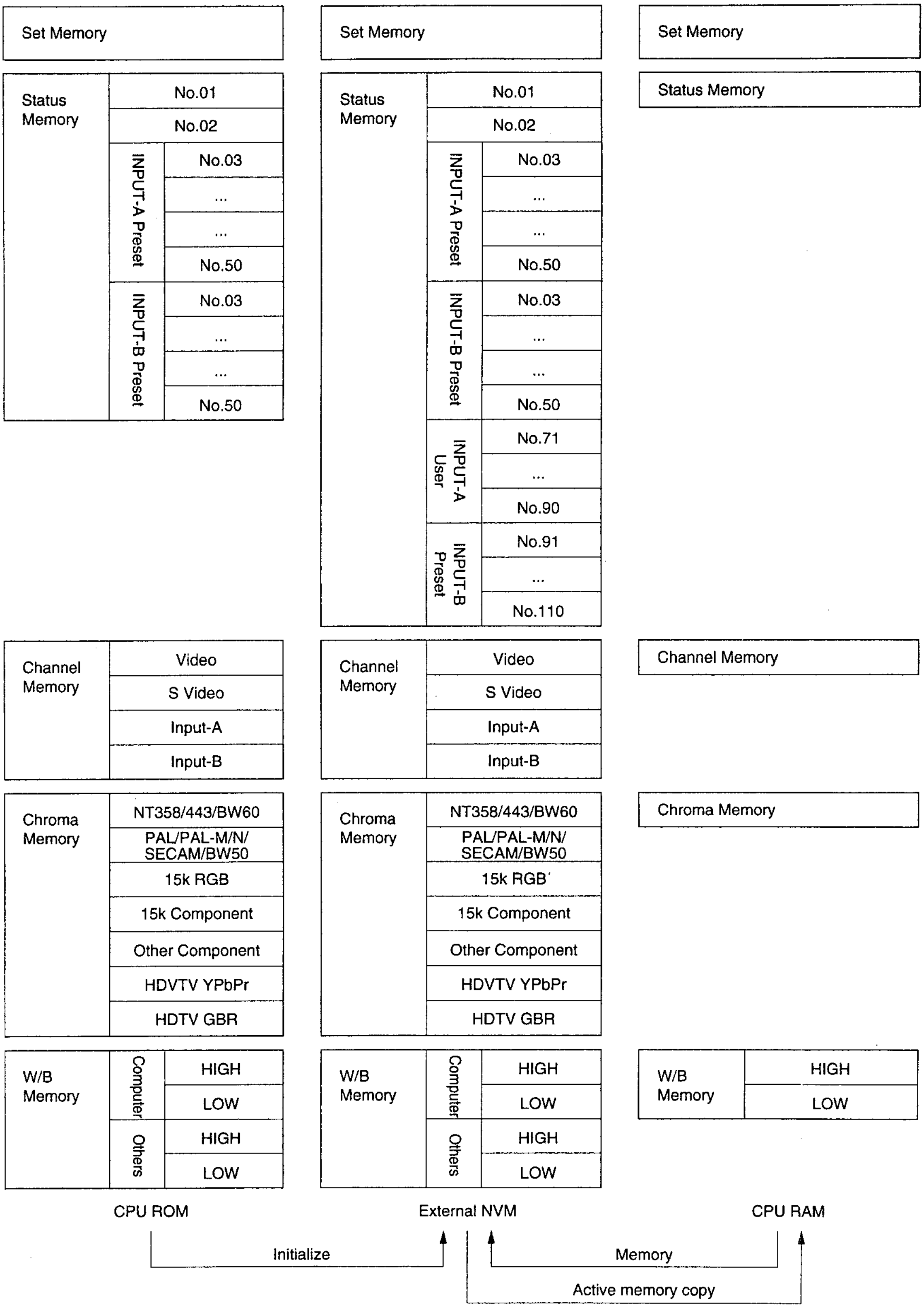
The 600 series is equipped with the gamma memory, but the current VPL-PX20/30 series is no gamma memory. The gamma mode function is realized by applying the offset to the output value of the contrast and the brightness of the devices as X2000 series.

When the power plug is connected to the power line (Standby status), all data inside the internal ROM are written into the NVM (Nonvolatile Memory). When the power is turned on, required data for the current picture, such as status memory data, etc., are selected, and they are written into the internal RAM.

When adjustment is carried out, adjustment data are written into the NVM automatically (items on the user mode) or by the trigger of memory operation (items on the service mode and special service mode).

Adjustable items (W/B and Device Adjust) of the service mode and special service mode are memorized into the NVM by the memory operation. At the same time, the factory preset (adjusted) data are all eliminated from the memory.

CPU Internal ROM : 256 kbyte Flash Memory
CPU Internal RAM : 16 kbyte
External NVM Memory: 256 kbyte Flash Memory



CPU ROM

Set Memory		
Status Memory		No.01
		No.02
	INPUT-A Preset	No.03
		...
		...
		No.50
	INPUT-B Preset	No.03
		...
		...
		No.50
Channel Memory		Video
		S Video
		Input-A
		Input-B
Chroma Memory		NT358/443/BW60
		PAL/PAL-M/N/ SECAM/BW50
		15k RGB
		15k Component
		Other Component
		HDVTV YPbPr
		HDTV GBR
W/B Memory	Computer	HIGH
		LOW
	Others	HIGH
		LOW

External NVM

Set Memory		
Status Memory		No.01
		No.02
	INPUT-A Preset	No.03
		...
		...
		No.50
	INPUT-B Preset	No.03
		...
		...
		No.50
	INPUT-A User	No.71
		...
		No.90
	INPUT-B Preset	No.91
		...
		No.110
Channel Memory		Video
		S Video
		Input-A
		Input-B
Chroma Memory		NT358/443/BW60
		PAL/PAL-M/N/ SECAM/BW50
		15k RGB'
		15k Component
		Other Component
		HDVTV YPbPr
		HDTV GBR
W/B Memory	Computer	HIGH
		LOW
	Others	HIGH
		LOW

CPU RAM

Set Memory	
Status Memory	
Channel Memory	
Chroma Memory	
W/B Memory	HIGH
	LOW

3-6. Description of QA Board Operations

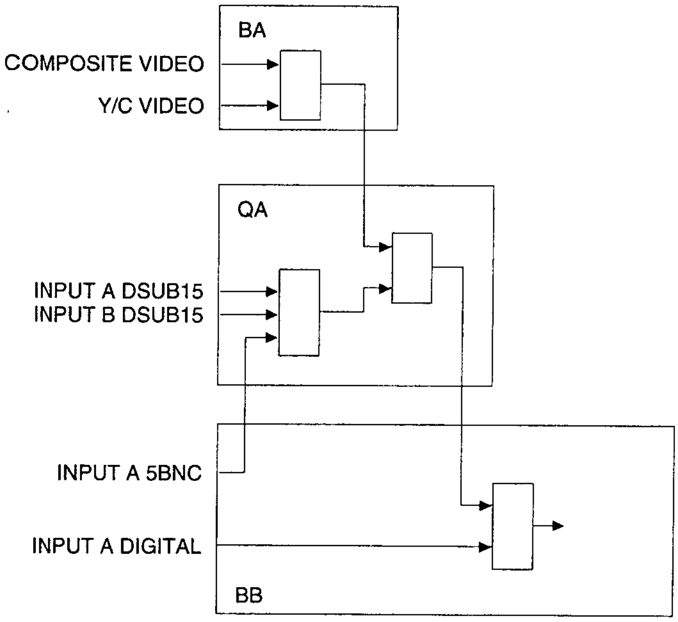
The QA board mainly switches between video signals and audio signals, and performs sync separation.

3-6-1. Switching of Video Signals

This model has the following signal input.

INPUT A	DSUB15 pin analog signal 5BNC analog signal Digital signal
INPUT B	DSUB15-pin analog signal
VIDEO	COMPOSITE Y/C

These signals are switched as shown in the following figure.


BA
COMPOSITE VIDEO
Y/C VIDEO
QA
INPUT A DSUB15
INPUT B DSUB15
INPUT A 5BNC
INPUT A DIGITAL
BB

As shown in the figure, the QA board first switches between INPUT A (DSUB15), INPUT A (5BNC), and INPUT B. The switching is performed by IC823 (RED), 824 (GREEN), and 825 (BLUE). SYNC is performed by IC811. These ICs are controlled by the output of IC806 and IC807 (both DAC) controlled by the CPU using the IIC bus.

Next the video signals input from the BA board and the RGB signals described above are switched by IC801. This IC amplifies the signal switched by two times, terminates the signal at 75 Ω in the later stage board, and outputs it. This IC is also controlled by IC806.

As described earlier, SYNC is switched by IC811, but the H SYNC input from 5BNC has additional conditions. When the signal input from 5BNC is 15 kHz, it is sync separated by IC805, and input to IC811 in the later stage. If it is not 15 kHz, it is input directly to IC811.

The SYNC selected by IC811 is waveform-rectified by Q821 to Q826, IC812, and IC813.
It is then branched in three ways, output to the BA board, input to IC814 for monitor-out, and input to IC802 for sync separation. After sync separation in IC802, it is switched with the SYNC from the video block by IC803, converted to 3.3V, and output to the BB board. IC804 fixes the video clamp pulse to a fixed pulse width.

The monitor-out outputs only signals projected to the screen from INPUT A (DSUB, 5BNC) and INPUT B. IC808 to IC810 are amplifiers for monitor-out. IC814 functions as an output buffer for SYNC.

3-6-2. Switching of Audio Signals

Audio signals input are switched by IC819, and volume-controlled. The output of IC819 is separated into that for the monitor-out and that for the speaker-out. The one for monitor-out is input to IC821, and output from CN806 to the QC board. That for the speaker-out is converted to 3 channels by Q836 to Q838. The L and R channel signals are then output to the KS board from CN810 while the mixed L and R signals are output from CN809 to the K board. Q831 to Q835 compose the mute circuit.

3-6-3. Monitoring of the USB Power Supply

The USB download side must be supplied up to 500 mA at 5V. IC822 monitors this current amount. 5V power is supplied to the download side from Pin 8 of IC822. When this exceeds 900 mA, the power is stopped, and at the same time, the High signal is supplied from Pin 2 to the USB control IC (IC3303) in the Y board.

IC822 also supplies power to the mouse driver (IC1201) for INPUT A on the QB board.
When a connector is connected to the upload side of the USB, a Low signal is input from the USB control IC (IC3303) on the Y board to Pin 4 of IC822, and a 5V power is supplied from Pin 5.

3-7. Description of QB Board Circuit Operations

The QB board is composed of the INPUT A input terminal, DDC memory, INPUT A mouse driver, and USB terminal.

3-7-1. INPUT A Input

Three signals are input to INPUT A; analog signal of DSUB15 pin, analog signal of 5 BNC, and digital signal. These signals are switched by SW1201. The analog signal of DSUB15 pin is input from CN1202 and output from CN1203 to the QA board. (An input terminal is provided for the 5BNC analog signal and digital signal in the BB board. These signals are output from this input terminal to the QA board.)

3-7-2. DDC Memory

IC1202 is a DDC memory for INPUT A. This IC is written with EDID data for DDC. When a computer is connected to CN1202, power is supplied to the IC. If the computer connected is DDC compatible, DDC communication is performed.

3-7-3. INPUT A Mouse Driver

IC1201 is a mouse driver for INPUT A. This IC functions when connected to PS/2 and the serial port of the computer, or connected to a Macintosh or NEC 98 series computer by USB. Identification of the mouse of these computers is performed when power is supplied to IC1201. As power is supplied from the computer except when connected by USB, connections can be identified even if AC is not supplied to the unit. When connected by USB, the mouse cannot be identified if no power is supplied to the unit.
The mouse code input from CN1203"A1" is decided by IC1201, and output from CN1201 or I1202 to the computer.

3-8. Description of QC Board Circuit Operations

The QC board is composed of the INPUT B input terminal, DCC memory, INPUT B mouse driver, and monitor-out terminal.

3-8-1. INPUT B Inputs

Unlike INPUT A , only analog signals of DSUB15 pin are accepted. The signal is input from CN1802, and output from CN1804 to the QA board.

3-8-2. DDC Memory

IC1802 is the DDC memory of INPUT B. This IC is written with EDID data for DDC.
When a computer is connected to CN1802, power is supplied to the IC. If the computer connected is DDC compatible, DDC communication will be performed.

3-8-3. INPUT A Mouse Driver

IC1201 is the mouse driver for INPUT A. The operations are basically the same as INPUT A. The only difference is that INPUT B has no USB connection.
The mouse code input from CN1804"A1 and B2" is decoded by IC1801, and output from CN1801 to the computer.

3-9. Description of QD Board Circuit Operations

The functions of this board include buffer of RS232C communication, reception of remote control signals (CIRCS signal), and video input.

3-9-1. RS232C Communication

In RS232C communication, IC1901 is used as the buffer. Signals are connected to the computer by CN1904, and passed through IC1901, CN1903, BB board, and then the Y board for communication with the CPU on the Y board.

3-9-2. Reception of Remote Control Signals

Signals from the remote controller connected by cable are input from I1902.
They are then inverted by Q1904, and output from Pin 5 of CN1903 to the Y board.
If not connected by remote control cable, signals received by the NF and NR boards are input from Pin 6 of CN1903, passed through J1902, and output from Pin 5 of CN1903 to the Y board again.

3-9-3. Video Input

Video signals are input from J1901, and output from CN1901 to the BA board.
The video audio signals are output from CN1902 to the QA board.

3-10. Description of K Board Circuit Operations

This board amplifies audio signals and outputs them to the main speaker.

Signals input from Pin 1 of CN2900 are amplified by IC2900 and output to the main speaker from CN2903.
Pin 3 of CN2900 inputs mute signals. When this line is High (about 4.5V), no more signals are output to the speaker.

3-11. Description of KS Board Circuit Operations

This board amplifies audio signals and outputs them to the sub speaker.

Signals input from Pins 3 and 5 of CN2951 are amplified in IC2950, passed through the H board from CN2952, and output to the sub speakers.

Pin 7 of CN2951 inputs mute signals. When this line is High (about 4.5V), no more signals are output to the speaker.

3-12. Voltage Map of F, GA, GB, GC, GD Board

3-12-1. Voltages Map of F, GA, GB, GC and GD Board

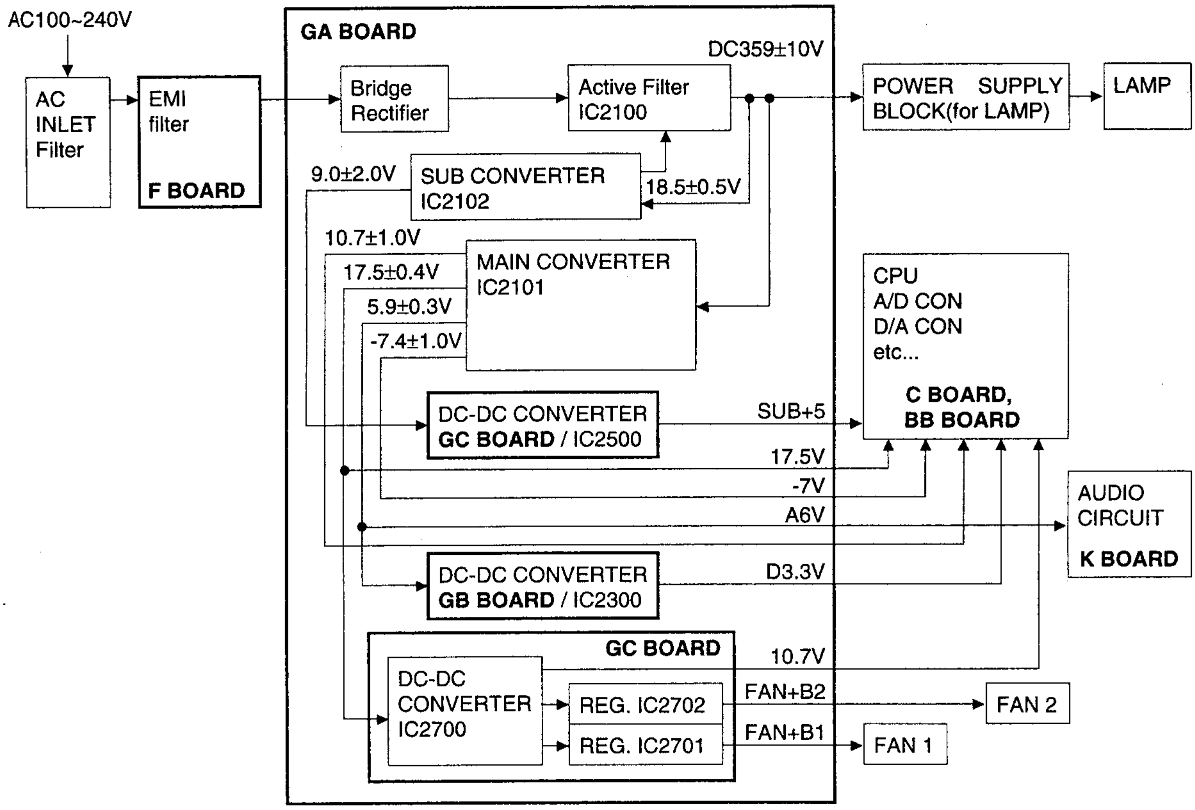

AC100~240V
AC INLET Filter
EMI filter
F BOARD
GA BOARD
DC359±10V
Bridge Rectifier
Active Filter IC2100
POWER SUPPLY BLOCK(for LAMP)
LAMP
9.0±2.0V
SUB CONVERTER IC2102
18.5±0.5V
10.7±1.0V
17.5±0.4V
5.9±0.3V
-7.4±1.0V
MAIN CONVERTER IC2101
CPU
A/D CON
D/A CON
etc...
C BOARD, BB BOARD
DC-DC CONVERTER GC BOARD / IC2500
SUB+5
17.5V
-7V
A6V
AUDIO CIRCUIT
K BOARD
DC-DC CONVERTER GB BOARD / IC2300
D3.3V
GC BOARD
10.7V
DC-DC CONVERTER IC2700
REG. IC2702
REG. IC2701
FAN+B2
FAN+B1
FAN 2
FAN 1

Fig. 1 Voltages Map

3-12-2. F Board

The EMI filter is composed of the one level of LFT.
The F2000 is the same regardless of whether it is 100V or 200V (6.3A/250V).

3-12-3. GA Board

1. Structure

- **Active Filter**
  The active filter improves the power factor of the AC voltage after bridge rectification, and at the same time, serves as a step-up converter and supplies DC358V±10V to the lamp power supply in the later stage, sub converter, and main converter. However, when the maximum AC voltage exceeds the output voltage of the active filter, the power factor will not be improved correctly.

- **Inrush Current Limit Circuit**
  When the AC voltage is supplied with the electric load of the smoothing capacitors C2112 and C2113 fully discharged, the inrush current flows to the capacitor, and as a result, damage the fuse in the input stage. To prevent this, immediately after inputting the AC voltage, the inrush current is limited by R2101. After the operations of the standby converter start, the thyristor D2102 turns ON and short-circuits the two edges of R2101. (The VPL-X600 series and VPL-SC50 series turn ON the thyristor after the operations of the main converter start.)

- **Sub converter**
  The DC voltage obtained by completely rectifying the AC voltage or the output voltage of the active filter is stepped-down to the GC board input voltage and the VCC for the active filter control IC. These operations are controlled by IC2102.
  - VCC (18.5V±0.5V)
  - GC board input voltage (9.0V±2.0V)

  ( ) shows the potential of the connector.

- **Main converter**
  The output voltage of the active filter is stepped-down to the following signal circuits and AUDIO circuit. These operations are controlled by IC2101.
  However, when no load, the voltage is clamped to about 17.8V by the diode.

- **Power protector**
  Normally, when the main converter is operating, GA/Q2107 turn ON, and the microprocessor port of the Y board is kept “Low”. When the output voltage lines and GND line of the main converter are short-circuited, GA/Q2107 goes OFF, and the microprocessor port of the Y board is set to “High”. Furthermore, the microprocessor sets the POWER ON signal to “Low”, and stops the operations of the main converter. (At this time, both the TEMP and LAMP LEDs of the control panel light up.)

2. Operations of the Active Filter

- **ON/OFF operations**
  The active filter starts operations at the same time as the main converter in the later stage. At standby, Q2106 maintains Pin 8 of IC2100 at “Low”, and the active filter does not operate. When the “High” signal is received from the microprocessor of the Y board, Pin 7 of CN2106 becomes “High”, Q2106 goes OFF, Q2104 turns ON, and Q2105 also turns ON. As a result, VCC is supplied to IC2100 and IC2100 starts operating.

3. Basic Operations

In conventional rectification circuits which do not use the active filter, peak recharge current is generated in a part of the AC voltage waveform due to the capacity components of the smoothing capacitor. This causes such problems of the effective power such as later phase power consumption, high frequency, etc., and may cause subsequent problems in other equipment. To prevent this, this power supply circuit is equipped with a step-up DC-DC converter in the smoothing circuit and adopts an active filter which compares the input current waveform with the input voltage waveform by appropriate control.

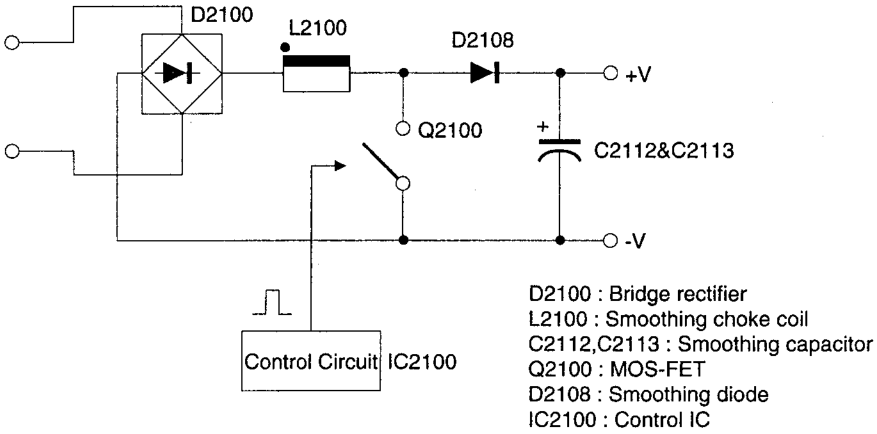

D2100
L2100
D2108
+V
Q2100
+
C2112&C2113
-V
Control Circuit
IC2100
D2100 : Bridge rectifier
L2100 : Smoothing choke coil
C2112,C2113 : Smoothing capacitor
Q2100 : MOS-FET
D2108 : Smoothing diode
IC2100 : Control IC

Fig. 2 Princple of Active Filter

Fig. 2 shows the principle of the active filter circuit. When MOS-FET Q2100 turns ON, energy is accumulated in the choke coil L2100. When it goes OFF, energy is discharged, and current flows to the load side.

Fig. 3 shows the relation between the voltage and current. The average input current for each switching period of the MOS-FET Q2100 is half of the peak current flowing to the choke coil L2100. Since these peak values can be placed on the curve proportionate to half the AC voltage input, they appear like resistance load on the AC voltage from the input side of the active filter.

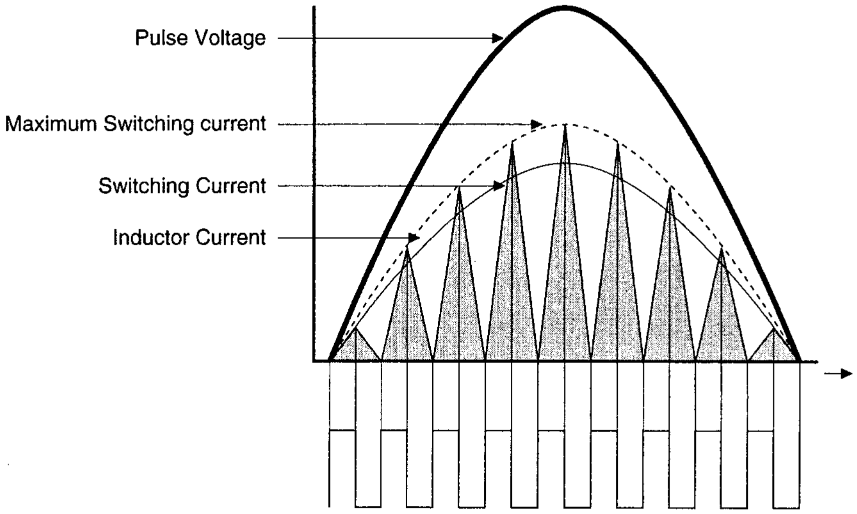


Fig. 3 Puls Voltage and current

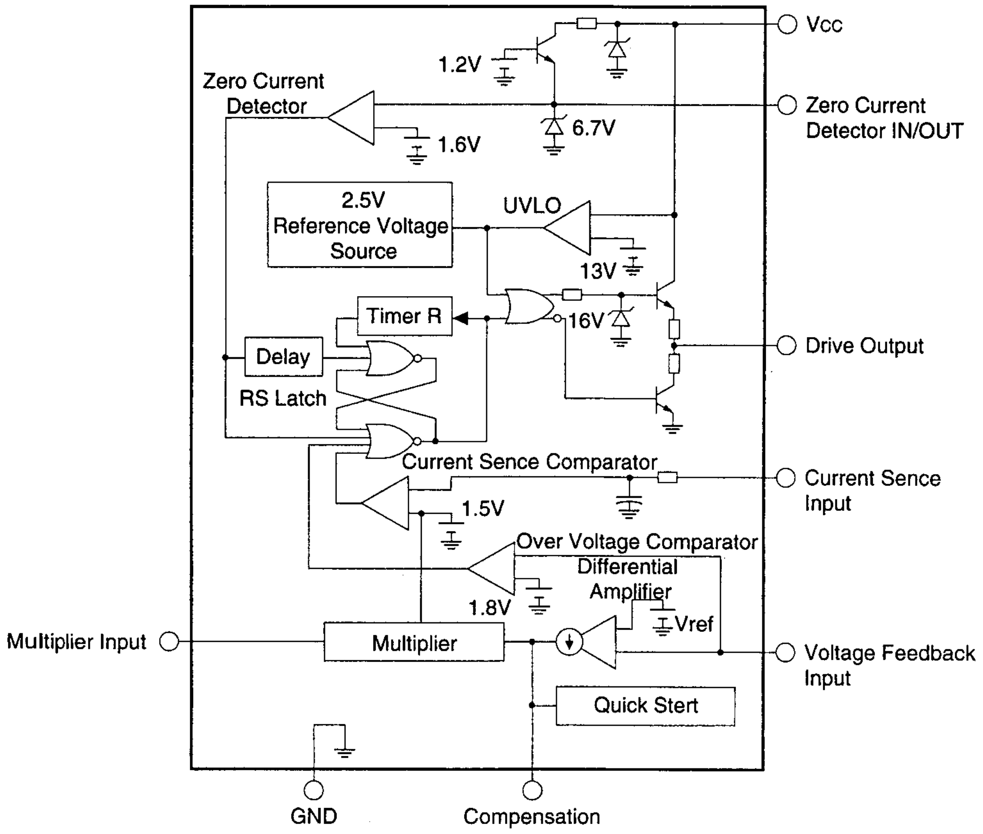

Vcc
1.2V
Zero Current Detector
1.6V
6.7V
Zero Current Detector IN/OUT
2.5V Reference Voltage Source
UVLO
13V
Timer R
16V
Delay
RS Latch
Drive Output
Current Sence Comparator
1.5V
Current Sence Input
Over Voltage Comparator
Differential Amplifier
1.8V
Vref
Multiplier Input
Multiplier
Voltage Feedback Input
Quick Stert
GND
Compensation

Fig. 4 Simple Block Diagram of IC2100

Fig. 4 show a simple block diagram of the active filter control IC2100. The current flowing to MOS-FET Q2100 is detected by the sense resistor R2106. When this current reaches the threshold value corresponding to the peak current flowing to the choke coil L2100, the comparator turns OFF the MOS-FET Q2100. The threshold value is sent to the comparator as the product of the AC voltage waveform and control amplifier output voltage V0. The MOS-FET Q2100 maintains the OFF state until the choke coil L2100 and diode S2108 current becomes zero. The output is maintained at 358±10V by the PWM control of the switching. This output setting is performed by the R2127 to R2133 voltage-dividing resistor.

4. Timer function

As a watchdog timer function is equipped inside the IC2100, no external oscillator is required. When the current flowing to the choke coil L2100 reaches zero and the drive output becomes OFF for more than 620 us, the timer automatically starts or restarts the pre-converter.

5. Internal over-voltage comparator

To prevent abnormal output voltages, the control ICIC2100 is equipped with an over-voltage comparator. This comparator turns ON at initial startup, when the load changes suddenly, and when the output ripple increases. The over-voltage comparator monitors the peak output voltage of the converter, and turns OFF the MOS-FET Q2100 immediately when the reference value is exceeded. The threshold value of the comparator is set to 1.08V in the control IC IC2100.

6. External over-voltage protection circuit

In case the internal over-voltage comparator does not function when the control IC2100 performs abnormal operations, an over-voltage protection circuit composed of the shunt regulator IC2105 has been equipped externally. The output voltage is monitored by the voltages of the two ends of R2177. When this potential reaches 2.495 (428V output voltage), IC2105 turns ON, to turn OFF the control IC IC2100 operating the latch circuit composed of Q2106 and Q2102.

7. External pre-drive circuit

The control ICIC2100 is equipped with a totem pole output stage, but due to the selection of a surface mounted device, strong heat is generated when a large input MOS-FET is driven. To suppress this heat, the pre-drive circuit composed of Q2109 and Q2110 has been added in front of the MOS-FET Q2100.

8. Details of parts

L2000	Choke coil for eliminating the noise components of the common mode.
D2100	Bridge rectification diode rectifying the AC voltage to both waveforms. Taking into account the voltage changes in the market, the 800V voltage resistor was used.
R2101	Resistor limiting the bridge current when AC voltage is input.
D2101	Thyristor short-circuiting R2101 when the main converter is operating.
Q2100	MOS-FET for switching the active filter. Performs switching by the PWM control of IC2100. Taking into account the heat generated by power loss, the current capacity of 16A is driven in series.
L2100	Choke coil for the active filter. Accumulates energy when Q2100 is ON and supplies current to the later stage when OFF.
D2108	Rectification diode for the active filter. A fast recovery diode is used for high voltage tolerance and high speed ON/OFF.
C2112, C2113	Smoothing capacitor for the active filter. Rectifies the half waveform after bridge rectification during standby. DC voltage is supplied to the sub-converter in the later stage. Recharges and discharges the step-up converter when the active filter is operating.
IC2100	Controls the operations of the active filter.
R2101	Current detection resistor. The current flowing to the active filter is input to IC2106 by the voltage of the two ends of this resistor.

3-12-4. Main Converter

1. ON/OFF Operations of the Main Converter

The main converter control IC is IC2101. During standby, Q2103 maintains the ON state. As the IC2101/CONTROL pin is Low, the main converter does not operate. When the "High" signal is received from the microprocessor at power ON of Pin 7 of CN2106, Q2103 goes OFF, and the main converter starts operating.

2. Basic operations of the main converter

The main converter is composed of the self-excited forward converter operating on the DC voltage received from the active filter.
The switching and control are performed by IC2101. The oscillating frequency is fixed to about 100 kHz by the internal oscillator for PWM control.

- Transformer secondary operations

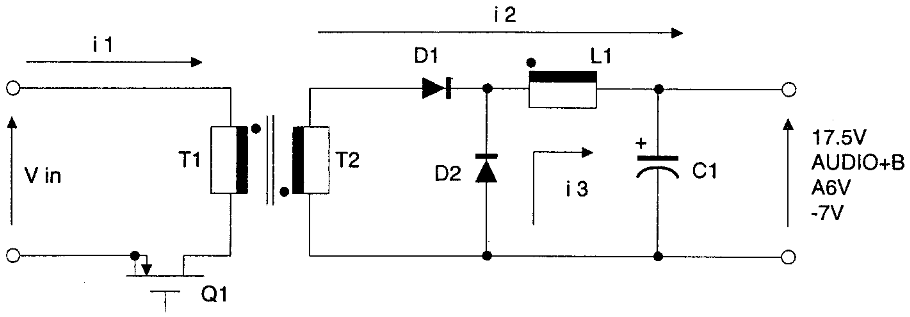


Fig. 5 Principle of Operations of Main Converter

When Q1 (built-in FET of IC2101 in this case) turns ON, the output voltage of the active filter is supplied to the primary line T1 of the transformer. At the same time, voltage is induced according to the number of coils in the secondary coiled line T2.
As the secondary side rectification diode D1 is biased in the normal direction, the current i2 is supplied. This current flows along the path for recharging the smoothing capacitor C1 in the order of D1, L1, and C1. The inductance L1 at this time is accumulated with PL energy.
Next, when Q1 goes OFF, no voltage Vin is transmitted from the primary side. Based on the PL energy accumulated when Q1 is ON, reverse power is generated in the L1 inductor. The current i3 from the L1 inductor flows from L1 to C1, and then to D2, and while Q1 is OFF according to the PL energy above.

3-12-5. Basic Operations of Sub-Converter

Composed of the RCC (Ringing Choke Converter) which can operate by the DC voltage obtained by completely rectifying the AC voltage or the output voltage of the active filter. This switching and control are performed by IC2102. The oscillating frequency is fixed at about 100 kHz by the internal oscillator for PWM control. During standby, voltage is supplied to the GC board generating the SUB5V for the microprocessor, and the VCC of the control ICs are also supplied when the main converter and active filter are operating (POWER ON).
When DC voltage is supplied between Pins 5 and 7 of the transformer T2101, a voltage corresponding to the number of coils is induced between Pins 8 and 9 of the transformer. IC2102 controls PWM so that the CONTROL terminal is always 5.7 V (TYP).

3-12-6. Details of Parts

R2139, R2140	Resistors for protecting the main and standby converters. When a problem occurs in the later stage circuit, the line is opened to protect other parts.
IC2102	Control IC of the sub converter. Comes in the same package as the PWM control IC and 700V MOS-FET.
T2102	Switching regulator transformer for the sub-converter. As it is of the flyback type, the secondary side goes OFF when the primary side is ON, and vice versa.
D2118, D2121	Snubber circuit of the sub converter. The noise is suppressed by the switching pulse of the sub converter.
IC2101	PWM control IC of the main converter.
T2100	Switching regulator transformer for the main converter. As it is of the forward type, when the primary side is ON, the secondary side also turns ON, and when the primary side is OFF, the secondary side also goes OFF.
R2145, R2146, R2147, C2121, D2119	Reset circuit of the main converter. Snubber circuit which consumes the exciting current accumulated in the primary coil of T2100 for every switching pulse.
D2124, D2134, S2135, D2136, D2137, D2138, D2139, D2127, D2129, D2132, D2128, D2130, D2131	Diode for the secondary rectification of the main converter.
L2105, L2106, L2107, L2108, L2101, L2109, L2102, L2103	Choke coil for the main converter.

3-12-7. GB, GC, and GD Boards

1. Structure

The GB, GC, and GD boards are each composed of the DC-DC converter for step-down voltage as shown below.

GB board : 5.9V±0.3V→3.3V±0.3V
GC board : 9.0V±2.0V→5.0V±0.3V
GD board : 17.5V±0.4V→10.6V±0.3V

2. Operations of the DC-DC Converter

As the structure of each DC-DC converter is more or less the same, the basic circuit operations are described here.

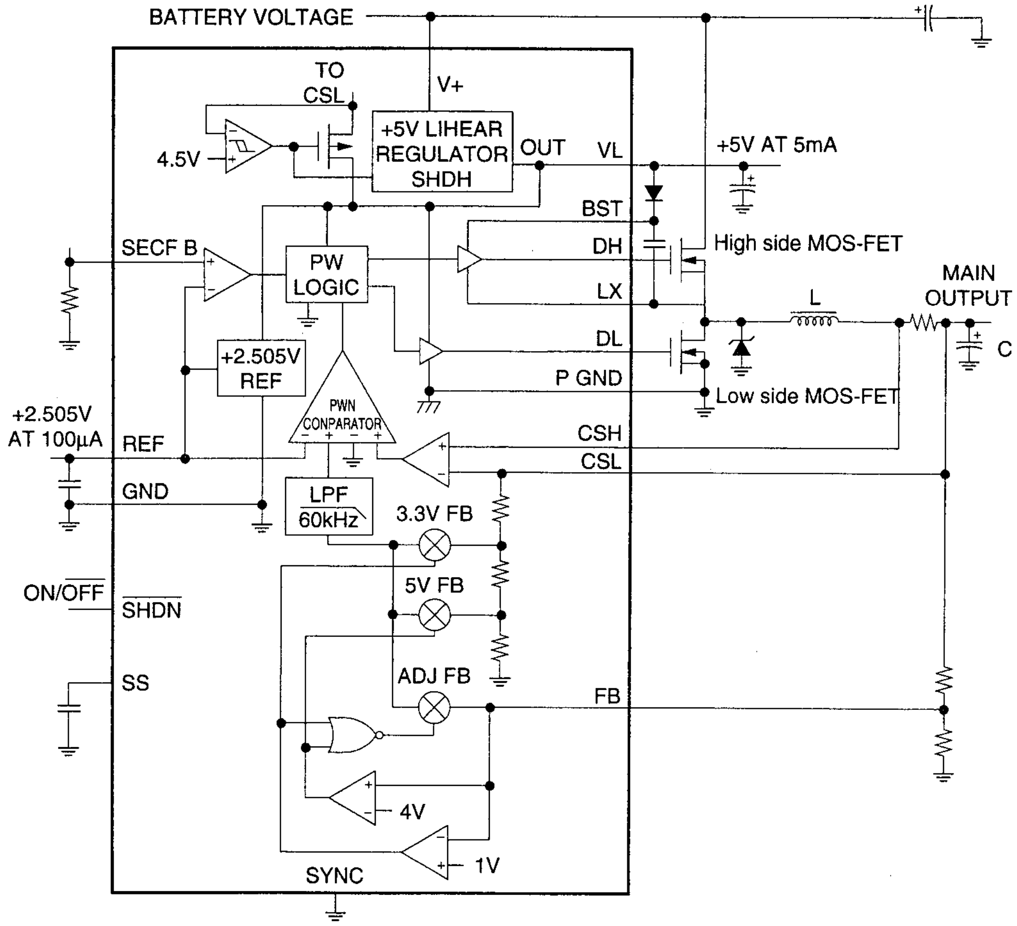

BATTERY VOLTAGE
TO CSL
V+
+5V LIHEAR REGULATOR
SHDH
OUT
VL
4.5V
+5V AT 5mA
BST
SECF B
PW LOGIC
DH
High side MOS-FET
MAIN OUTPUT
LX
L
DL
+2.505V REF
C
P GND
PWN CONPARATOR
Low side MOS-FET
+2.505V AT 100μA
REF
CSH
CSL
GND
LPF 60kHz
3.3V FB
5V FB
ON/OFF
SHDN
SS
ADJ FB
FB
4V
1V
SYNC

Fig. 6 DC-DC Converter Control Circuit

Fig. 6 shows the DC-DC converter control circuit structure. This converter adopts the step-down chopper method in which the input voltage is directly switched by two MOS-FETs.
In moderate loads, the DC-DC converter sets into the idling mode and skips most of the internal oscillator pulses to decrease the switching frequency and reduce MOS-FET switching losses.
In heavy loads, the converter controls the MOS-FET pulse width used for switching, and turns ON the High side MOS-FET only for the time determined by the duty ratio.
When the MOS-FET at the High side goes OFF, the Low side MOS-FET turns ON after 60 ns. The Low side MOS-FET maintains the ON state until the current flowing to the L inductor zero-crosses.
The aim of these operations is to attain high efficiency in both moderate and heavy loads.

When the potential difference between Pin 8 (CSH) and Pin 9 (CSL) of the control IC exceeds 100 mV due to shorting of the load, etc., the control IC internal current restriction circuit stops PWM LOGIC and turns OFF the High side MOD-FET.

3. GC Board (SUB5V DC-DC converter)

The GC board is input with the secondary side output voltage (9.0V±2.0V) of T2101 from when the power supply voltage is input. It steps down the standby voltage 5.0V±0.3V supplied to the microprocessor by the DC-DC converter IC2500 and outputs it.
The GB board receives and transmits the POWER ON signal, and POWER PROT signal.

4. GB Board (D3.3V DC-DC Converter)

The GB board is input with the secondary side output voltage A6V (5.9V±0.3V) of T2100 when the power is turned ON. It steps-down the D3.3V (3.3V±0.3V) supplied to the signal circuit using the DC-DC converter IC2300, and outputs it.

5. GC Board 10.7V DC-DC Converter and FAN+B1, 2 Regulator

The GD board is input with the secondary side output voltage 17.5V (17.5V±0.4V) of T2100 when the power is turned ON. It steps-down the 10.7V (10.6V±0.3V) supplied to the signal circuit using the DC-DC converter IC2700, and outputs it.
The GD board is mounted with a regulator (IC2701, IC2702) which inputs the above 10.7V and steps-down the voltage FAN+B1, 2 for the suction and exhaust FAN. The microprocessor of the Y board reads the resistance value of the thermistor TH2020 (resistance value changes according to the temperature) mounted on the S board and outputs the 0 to 5V voltage from the port to Pins 7 and 9 of CN2701 of the GD board.
By adding the current based on the voltage to the ADJ terminal of the regulators IC2701 and IC2702, the suction FAN controls the 10.2V to 6V (FAN+B1) while the exhaust FAN controls the 10.2V to 7V (FAN+B2) voltage. The thermistor TH2020 mainly monitors the external temperature of the unit. When the LAMP MODE STANDARD mode is selected on the menu, both fans are set to the minimum voltage of FAN 7V for the suction FAN and 8V for the exhaust Fan. When the LAMP MODE LOW mode is set, the fans are set to the minimum voltage of FAN 6V for the suction FAN and 7V for the exhaust Fan.

Section 4
Electrical Adjustments

4-1. Equipment Required

- Oscilloscope
  Tektronix 2465 or equivalent
  (bandwidth: 350 MHz or more)
- NTSC, PAL, SECAM component signal generator
  Tektronix TG2000 + AVG1 (optional module)
  +AWVG1 (optional module) or equivalent
- VG (Programmable video signal generator)
  VG814 or equivalent
- Digital voltmeter
  Advantest TR6845 or equivalent
- Luminance meter

Note: **Perform the following adjustments at least 5 minutes after turning on the power.**

4-2. Preparations

4-2-1. Turning on the Power

1. Connect the power cord and supply the power to the unit.
2. Check that the STANDBY LED of the control panel lights up in red.

4-2-2. Setting the Factory Mode

1. Check that the STATUS in the menu is ON.
2. Exit the Menu.
3. Press the keys in the following order:
   "ENTER" → "ENTER" → "LEFT" → "ENTER".
   The message "Do you with to enter into the FACTORY MODE?" will be displayed.
   Select YES on the menu to set the unit into the factory mode.

4-3. C Board Adjustments

4-3-1. R VCOM Adjustments

Turn off the menu using the STATUS OFF during adjustments. (No shield is required.)

1. Enter the R DRV of the device adjust by the factory mode and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

4-3-2. G VCOM Adjustments

1. Enter the G DRV of the device adjust by the factory mode and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

4-3-3. B VCOM Adjustments

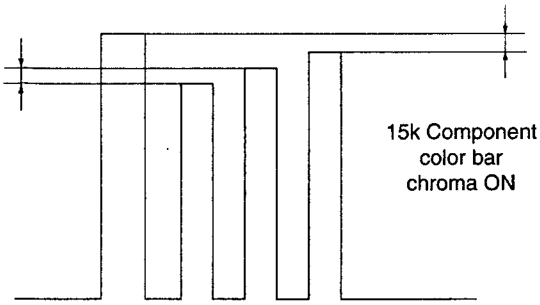
1. Enter the B DRV of the device adjust by the factory mode and check the 1 line ON/OFF signal.
2. Adjust the ← and → keys to minimize the flicker.

4-4. Signal Level Adjustments

4-4-1. Component Level Adjustments

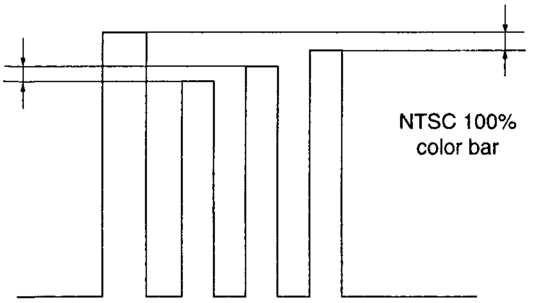
1. Connect the component signal to INPUT-A (5BNC), and select COMPONENT with SIGNAL SELECT. (15K Component color bar Chroma ON)
2. Set the COLOR to 40.
3. Connect the oscilloscope to TP612 (B OUT) on the C board.
4. Enter the OTHER of the device adjust of the menu.
5. Set 06 3D GAMMA/THROUGH: 0 to 06 3D GAMMA/THROUGH: 1.
6. Set 07 3D GAMMA/SW: 1 to 07 3D GAMMA/SW: 0
7. Adjust the cursor at the top of the oscilloscope to the bar on the left side (white section).
8. Adjust GND level to the bottom edge in the DC 0.5 V range.
9. Set the input signal to component color bar.
10. Select 12 YUV COL. Adjust the ← and → keys so that the levels of the right bar and the left bar become the same.
11. Select 05 SUB HUE. Adjust the ← and → keys so that the two bars at the center become flat.

12. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.



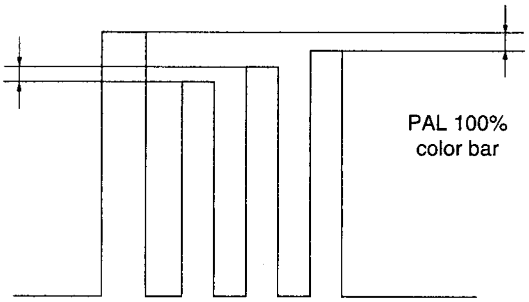
4-4-2. VIDEO NTSC Level Adjustments

1. Set the Color to 40. Input the NTSC 100% Color bar signal to the VIDEO input, and switch the input to VIDEO.
   The RGB MATRIX of device adjust of the menu is set.
2. Connect the oscilloscope to TP612 on the C board.
3. Select 12 YUV COL, and adjust the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 05 SUB HUE, and adjust the ← and → keys so that the two bars at the center become flat.
5. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.



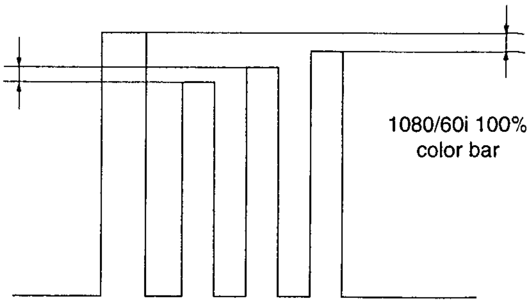
4-4-3. VIDEO PAL Level Adjustments

1. Set the Color to 40. Input the PAL 100% Color bar signal to the VIDEO input.
   BA MATRIX of device adjust on the menu is set.
2. Connect the oscilloscope to TP612 on the C board.
3. Select 12 YUV COL, and adjust the ← and → keys so that the levels of the right bar and left bar become the same.
4. Select 04 SUB HUE, and adjust the ← and → keys so that the two bars at the center become flat.
5. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.



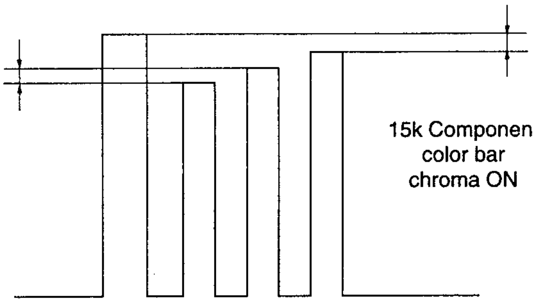
4-4-4. Y/PB/PR Level Adjustments

1. Input the HDVS (1080/60i) 100% Color bar (YPbPr) signal to INPUT-A, select INPUT-A, and select Y/PB/PR using SIGNAL SELECT.
2. Set RGB MATRIX of Device adjust on the menu.
3. Select 11 YUV COM, and adjust using the ← and → keys so that the level of the left bar becomes the same as the level of the cursor at the top.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 04 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.



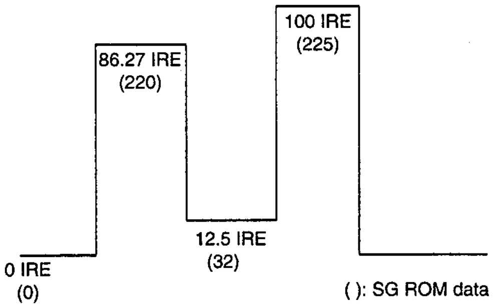
4-4-5. 15KRGB Level Adjustments

1. Input the 15K RGB 100% Color bar signal to INPUT-A, select INPUT-A, and select RGB using SIGNAL SELECT.
2. Set RGB MATRIX of Device adjust on the menu.
3. Connect the oscilloscope to TP612 on the C board.
4. Select 12 YUV COL, and adjust using the ← and → keys so that the levels of the right bar and left bar become the same.
5. Select 05 SUB HUE, and adjust using the ← and → keys so that the two bars at the center become flat.
6. Press the ENTER key to select the SAVE TO MEMORY of the menu, and press the ENTER key again to save the data.

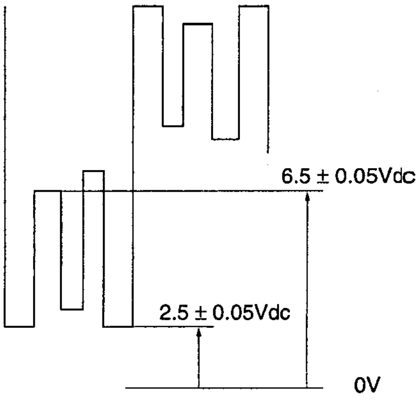


4-4-6. W/B HIGH Adjustments

1. Input the W/B HIGH adjustment signal to INPUT-A, and connect the oscilloscope to TP605 on the C board.

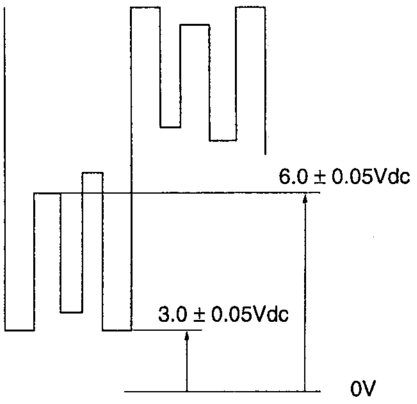


2. Set the CONTRAST control to maximum position.
3. Enter the OTHER of the device adjust of the menu.
4. Set 06 3D GAMMA/THROUGH: 0 to 06 3D GAMMA/THROUGH: 1.
5. Set 07 3D GAMMA/SW: 1
6. Set 07 3D GAMMA/SW: 0.
7. Enter the P DRV of the device adjust of the menu.
8. Adjust the lower side of the 100 IRE section of the signal for 2.5 ± 0.05 Vdc with 11.VAMP/SUB CON R.
9. Adjust the lower side of the 100 IRE section of the signal for 6.5 ± 0.05 Vdc with 13.VAMP/SUB CON B.
10. Input the W/B HIGH adjustment signal to INPUT-A, and connect the oscilloscope to TP602 on the C board.
11. Adjust the lower side of the 100 IRE section of the signal for 6.5 ± 0.05 Vdc with 12.VAMP/SUB CON G.
12. Input the W/B HIGH adjustment signal to INPUT-A, and connect the oscilloscope to TP608 on the C board.
13. Adjust the lower side of the 100 IRE section of the signal for 6.5 ± 0.05 Vdc with 11.VAMP/SUB CON R.



14. Select the SAVE TO MEMORY of the device adjust of the menu, and press the ENTER key to save the data.

15. Rest the CONTRAST to 80.
16. Connect the oscilloscope to TP605 on the C board.
17. Enter the WB ADJUST HIGH by the menu.
18. Adjust the DC level of signal's 87.5 IRE section for 6.0 ± 0.05 Vdc with GAIN B .
19. Connect the oscilloscope to TP602 on the C board.
20. Adjust the DC level of signal's 87.5 IRE section for 6.0 ± 0.05 Vdc with GAIN G.
21. Connect the oscilloscope to TP608 on the C board.
22. Adjust the DC level of signal's 87.5 IRE section for 6.0 ± 0.05 Vdc with GAIN G and adjust the lower side of the 12.5 IRE section of the signal for 3.0 ± 0.05Vdc with 13.VAMP/SUB CON B.
23. Connect the oscilloscope to TP608 on the C board.
24. Adjust the DC level of signal's 87.5 IRE section for 6.0 ± 0.05 Vdc with GAIN R and adjust the DC level of signal's 12.5 IRE section for 3.0 ± 0.05 Vdc with BIAS R.



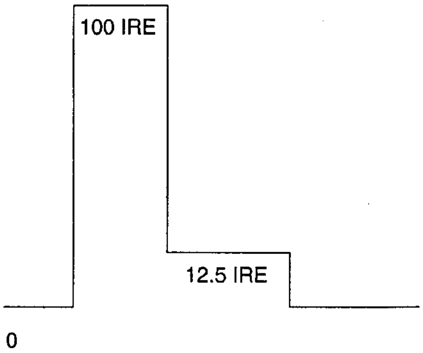
25. Select the SAVE TO MEMORY from the W/B ADJUST page of the menu, and press the ENTER key to save the data.

4-4-7. W/B LOW Adjustments

1. Enter the RGB WB LOW by the menu.
2. Copy the adjusted value of the HIGH mode to the R/G/B BIAS.
3. Enter the following value in the R/G/B GAIN.
   R GAIN: HIGH mode + 5
   G GAIN: HIGH mode − 5
   B GAIN: HIGH mode − 15
4. Select the SAVE TO MEMORY from the W/B ADJUST page of the menu, and press the ENTER key to save the data.
5. Enter the OTHER of the device adjust of the menu.
6. Reset 06 3D GAMMA/THROUGH: 1 to 06 3D GAMMA/THROUGH: 0.
7. Reset 07 3D GAMMA/SW: 0 to 07 3D GAMMA/SW: 1.
8. Select the SAVE TO MEMORY from the Device adjust page of the menu, and press the ENTER key to save the data.

4-4-8. Component Y Level Adjustment

1. Input the Component Y signal to INPUT-A (5BNC), and select the COMPONENT by INPUT-A of the SET SETTING.



2. Connect the oscilloscope to TP605 on the C board.
3. Enter the OTHER of the device adjust of the menu.
4. Set 06 3D GAMMA/THROUGH: 0 to 06 3D GAMMA/THROUGH: 1.
5. Set 07 3D GAMMA/SW: 1 to 07 3D GAMMA/SW: 0.
6. Enter the WB ADJUST HIGN from the menu.
7. Adjust the 100 IRE section of the signal for 6.1 ± 0.05 Vdc with GAIN B and adjust the 12.5 IRE section of the signal for 6.1 ± 0.05 Vdc with BIAS B.
8. Connect the oscilloscope to TP602 on the C board.
9. Adjust the 100 IRE section of the signal for 6.1 ± 0.05 Vdc with GAIN G and adjust the 100 IRE section of the signal for 3.0 ± 0.05 Vdc with BIAS G
10. Connect the oscilloscope to TP608 on the C board.

11. Adjust the 100 IRE section of the signal for 6.1 ± 0.05 Vdc with GAIN R and adjust the 100 IRE section of the signal for 3.0 ± 0.05 Vdc with BAIS R.
12. Select the SAVE TO MEMORY from the W/B ADJUST page of the menu, and press the ENTER key to save the data.
13. Enter the OTHER of the device adjust of the menu.
14. Reset 06 3D GAMMA/THROUGH: 1 to 06 3D GAMMA/THROUGH: 0.
15. Reset 07 3D GAMMA/SW: 0 to 07 3D GAMMA/SW: 1.
16. Select the SAVE TO MEMORY from the Device adjust page of the menu, and press the ENTER key to save the data.

4-5. VIDEO W/B Low Mode Adjustment

1. Input the component flat field signal to INPUT-A.
2. Select the INPUT-A, then select the COMPONENT with INPUT-A of SET SETTING.
3. Set the D.PICTURE of PICTURE CONTROL to off.
4. Set the "06 3D GAMMA/THROUGH" to "0" (LUT ON).
5. Set the "07 3D GAMMA/SW" to "1" (3D GAMMA ON).

4-5-1. High Mode

1. Enter the HIGH MODE.
2. Make sure that the R/G/B GAIN and BIAS are adjusted properly.
3. Input the 80 IRE component flat field signal to INPUT-A.
4. Adjust the y value by the G GAIN of W/B HIGH. When the x value after the y value adjustment is greater than the specification, use the Blue as reference color. If it is smaller than the specification, use the Red as reference color. Adjust the color as shown below with the GAIN other than the reference color.
5. Input the 30 IRE component flat field signal to INPUT-A.
6. Adjust the color as shown below with the BIAS other than the reference color.
7. Perform the 80 IRE and the 30 IRE adjustments above repeatedly until the specifications are met.
8. Select the SAVE TO MEMORY from the W/B ADJUST page of the menu, and press the ENTER key to save the data.

HIGH MODE color specifications:
(x, y)=(0.275, 0.312) ± 0.005 (80 IRE)
(x, y)=(0.275, 0.312) ± 0.007 (30 IRE)

4-5-2. Low Mode

1. Enter the LOW MODE.
2. Make sure that the same data as W/B HIGH are written in the R/G/B GAIN and BIAS.
3. Input the 80 IRE component flat field signal to INPUT-A.
4. Adjust the Y value by the G GAIN. When the X value after the Y value adjustment is greater than the specification, use the Blue as reference color. If it is smaller than the specification, use the Red as reference color. Adjust the color as shown below with the GAIN other than the reference color.
5. Input the 30 IRE component flat field signal to INPUT-A.
6. Adjust the color as shown below with the BIAS other than the reference color.
7. Perform the 80 IRE and the 30 IRE adjustments above repeatedly until the specifications are met.
8. Select the SAVE TO MEMORY from the W/B ADJUST page of the menu, and press the ENTER key to save the data.

LOW MODE color specifications:
(x, y)=(0.283, 0.331) ± 0.005(80 IRE)
(x, y)=(0.283, 0.331) ± 0.007 (30 IRE)

4-6. Adjustments in Replacement of Prism and Optical Unit

After replacement of the prism, set the factory mode, and perform the following adjustment.

4-6-1. VCOM Adjustment

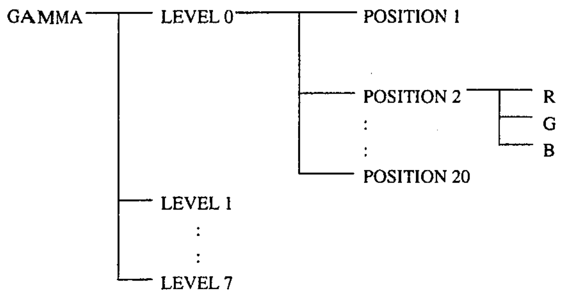
The bottom most menu item on the main menu is the Device Adjustment Menu. Set this menu and select "P. DRV." Perform V COM adjustments for each of the item "V COM/R," "V COM/G," and "V COM/B."
In the above mode, as the built-in test pattern will be output, adjust so that flicker is minimum throughout the whole screen.

4-6-2. Polarization Plate Adjustment

Select "BB-GAMMA" on the device adjustment menu. Press the "PIC MUTING" button and the whole screen will become black. In this state, adjust the respective polarization plate until the black becomes the darkest.

4-6-3. 3Dγ Adjustment (Outline)

The principle of 3Dγ is described before the adjustment of 3Dγ.
3Dγ is like a function which can individually adjust W/B at a total of 180 points brightness 8 levels, horizontal direction 6 points, vertical direction 5 points (8*6*5=160 points).
So altogether 540 adjustments (160*3 (RGB)=480) will be required, which is in practice not possible. The following describes a simpler method.
First the "GAMMA" menu consists of the following hierarchy.



When adjusting a certain LEVEL, automatically the internal signal (flat field) of that level will be displayed.

4-6-4. 3Dγ Adjustments

1. First input "GAMMA."
2. Set LEVEL to 1.
3. Study the uniformity of the whole screen, and locate the areas where uniformity is poor.
4. Changing "POSITION" to 1, 2, or 3 will display the cursor. The position of the cursor is the position which will be adjusted.
   Move the cursor to the area with poor uniformity.
5. Move "R" and "B" up and down, and adjust so that the uniformity is the same as the other areas.
6. Set LEVEL 2.
7. Like steps 3, 4, and 5, adjust the areas with poor uniformity.
8. Adjust up to LEVEL 6.
9. Study the test pattern from LEVEL 1 to LEVEL 6, and if no problems, return to the first hierarchy, adjust the device, and save the data in SAVE TO MEMORY.

Precautions:

1. Basically adjust RED and BLUE only without changing GREEN.
2. Do not adjust LEVEL 0 and LEVEL 7.
3. To set back factory settings should adjustments fail, skip "SAVE TO MEMORY," press the STANDBY key, and turn off the power. All the adjusted data will be set back to factory settings.
   Factory settings cannot be set back however if "SAVE TO MEMORY" has already been implemented. So check the picture quality carefully prior to implementing "SAVE TO MEMORY."
4. For zoom lens, the uniformity will change slightly according to the zoom position.
   As uniformity will change slightly according to the F number of the lens, perform the adjustments on the projection system under the normal using conditions.
5. Do not change other items in the Device Adjust Menu.
   The device adjust menu contains important parameters for machine operations.
   Unnecessary operations will result in "no image" and "abnormal image."
   "Factory reset" cannot be performed on device adjust menu items.
   (Implementing SAVE TO MEMORY will completely overwrite the data.)
   Do not change data unnecessarily.

4-7. Adjustment Item Intialize Data

Device Name	Item Name	Memory Name								Remark
		SET MEMORY	CHROMA MEMORY							
			NT358/NT443 /BW60	Pal/Pal-M/N /Secam/BW50	15kRGB	YCbCr (15k)	YCbCr (Exc. 15k)	YPbPr	HD -GBR	
RGB MTRX/	CONTRAST	8								Fixed value
	R DRIVE		30	30	30	30	30	30	30	Fixed value
	G DRIVE		30	30	30	30	30	30	30	Fixed value
	B DRIVE		30	30	30	30	30	30	30	Fixed value
	SUB HUE		7	7	7	7	7	7	7	
	SUB BRT	54								Fixed value
	R-Y/R		6	13	13	13	13	13	13	Fixed value
	R-Y/B		12	15	15	15	15	15	15	Fixed value
	G-Y/R		10	8	8	8	8	8	8	Fixed value
	G-Y/B		5	4	4	4	4	4	4	Fixed value
	YUV CON		7	7	11	11	11	11	11	
	YUV COL		12	12	12	12	12	12	12	
	SUB SHP		1	1	3	3	3	3	3	Fixed value
	SHPFO		1	1	1	1	1	1	1	Fixed value
	PRE OVER		0	0	0	0	0	0	0	Fixed value
	DMIC PIC	3								Fixed value
	CTI LVL		2	2	1	1	1	1	1	Fixed value
	LTI LVL		1	1	1	1	0	0	0	Fixed value
D. COM/	VENH	5								Fixed value
CHROMA/	Y-OUT LVL	13								Fixed value
	C-PUT LVL	18								Fixed value
	Y-DL	5								Fixed value
	S B-Y ADJ	7								Fixed value
	S R-Y ADJ	7								Fixed value
	S-INHBT	0								Fixed value
	S-ID	0								Fixed value
	S GP	0								Fixed value
	S V-ID	0								Fixed value
	BELL FO	0								Fixed value
	HPF	0								Fixed value
	SHP GAIN		8	8	8	8	8	8	8	Fixed value
	SHP EQ		0	0	0	0	0	0	0	Fixed value
	SHP FO		2	2	2	2	2	2	2	Fixed value
P. DRV/	VCOM G	40								
	VCOM R	37								
	VCOM B	40								
	SIG CEN	148								Fixed value

Note: There are nonadjustable items in accordance with the input signal.

Device Name	Item Name	Memory Name								Remarks
		SET MEMORY	CHROMA MEMORY							
			NT358/NT443 /BW60	Pal/Pal-M/N /Secam/BW50	15kRGB	YCbCr (15k)	YCbCr (Exc. 15)	YPbPr	HD -GBR	
P. DRV/	SID LVL	206								Fixed value
	PRG LVL	86								Fixed value
	INV CONT	0								Fixed value
SH/	SH1	10								Fixed value
	SH2	200								Fixed value
VAMP	CONT	190								Fixed value
	SUB CON R	180								
	SUB CON G	180								
	SUB CON B	180								
	BRT	212								Fixed value
3D GAMMA/	SUB CONT	0								Fixed value
	SUB BRT	0								Fixed value
	R OSD LVL	16								Fixed value
	G OSD LVL	16								Fixed value
	B OSD LVL	16								Fixed value
	THROUGH	0								Fixed value
	SW	1								Fixed value
	APC THRES	25								Fixed value
	APC LIMIT	32								Fixed value
OTHER/	H START	143								Fixed value
	V START	22								Fixed value
	TEMP LAMP	Nonadjustable								Fixed value
	TEMP PANEL	Nonadjustable								Fixed value
	LAMP FAN1	Nonadjustable								Fixed value
	PANEL FAN1	Nonadjustable								Fixed value
	LAMP FAN2	Nonadjustable								Fixed value
	PANEL FAN2	Nonadjustable								Fixed value
GAMMA		Indication only								

Note: There are nonadjustable items in accordance with the input signal.

Menu Title	Item Name	Memory Name				
		SET MEMORY	CH MEMORY			
			VIDEO	S Video	INPUT-A	INPUT-B
PICTURE CTRL	CONTRAST		80	80	80	80
	BRI GHT		50	50	50	50
	COLOR		50	50	50	–
	HUE		50	50	50	–
	SHARP		50	50	50	–
	RGB ENHANCER		–	–	30	30
	D.PICTURE		OFF	OFF	OFF	–
	GAMMA MODE		–	–	GRAPHICS	GRAPHICS
	COLOR TEMP		LOW	LOW	HIGH	HIGH
	COLOR SYS		AUTO	AUTO	AUTO	AUTO
INPUT SETTING	DOT PHASE					
	SIZE H					
	SHIFT					
	SCAN CONV					
	ASPECT					
	BLANKING					
SET SETTING	STATUS	ON				
	INPUT-A	COMPUTER				
	AUTO INPUT SEL	OFF				
	LANGUAGE	ENGLSH				
	SPEAKER	ON				
	POWER SAVING	OFF				
	SIRCS RECEIVER	FRONT&REAR				
INSTALL SETTING	KEYSTONE MEM.	ON				
	DIGIT KEYSTONE	0				
	INSTALLATION	FLOOR-FRONT				
	LAMP MODE	STANDARD				
	LAMP TIMER	Indication only				
INFORMATION	fH	Indication only				
	fV	Indication only				
	ROM Ver	Indication only				
	OPERATION TIMER	Indication only				
	PREVIOUS LAMP TIMER	Indication only				
W/B ADJUST	GAIN R					
	GAIN G					
	GAIN B					
	BIAS R					
	BIAS G					
	BIAS B					

* : DOT PHASE, SIZE H, SHIFT H/V, SCAN CONV, ASPECT, and BLANKING in the "INPUT SETTING" menu have an initial value respectively in accordance with the input signal (PRESET MEMORY No.).

Note : There are nonadjustable items in accordance with the input signal.

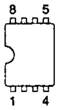
Menu Title	Item Name	Memory Name				
		STATUS MEMORY	W/B MEMORY			
			VIDEO -HIGH	VIDEO -LOW	RGB -HIGH	RGB -LOW
PICTURE CTRL	CONTRAST					
	BRI GHT					
	COLOR					
	HUE					
	SHARP					
	RGB ENHANCER					
	D.PICTURE					
	GAMMA MODE					
	COLOR TEMP					
	COLOR SYS					
INPUT SETTING	DOT PHASE	24(*)				
	SIZE H	*				
	SHIFT	*				
	SCAN CONV	ON (*)				
	ASPECT	4 :3 (*)				
	BLANKING	0 (*)				
SET SETTING	STATUS					
	INPUT-A					
	AUTO INPUT SEL					
	LANGUAGE					
	SPEAKER					
	POWER SAVING					
	SIRCS RECEIVER					
INSTALL SETTING	KEYSTONE MEM.					
	DIGIT KEYSTONE					
	INSTALLATION					
	LAMP MODE					
	LAMP TIMER					
INFORMATION	FH					
	FV					
	ROM Ver					
	OPERATION TIMER					
	PREVIOUS LAMP TIMER					
W/B ADJUST	GAIN R		170	175	170	175
	GAIN G		170	165	170	165
	GAIN B		170	160	170	160
	BIAS R		80	80	80	80
	BIAS G		80	80	80	80
	BIAS B		80	80	80	80

* : DOT PHASE, SIZE H, SHIFT H/V, SCAN CONV, ASPECT, and BLANKING in the “INPUT SETTING” menu have an initial value respectively in accordance with the input signal (PRESET MEMORY No.).

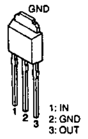
Note : There are nonadjustable items in accordance with the input signal.

Section 5
Semiconductors

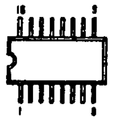
24LC21AT/SN



BA09FP-E2
BA12FP-E2

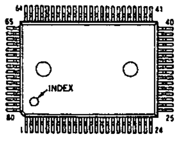

GND
1
2
3
1: IN
2: GND
3: OUT

CXA1875AM-T4
EL4332CS
TC74HC4052AFT
MAX202CSE-T



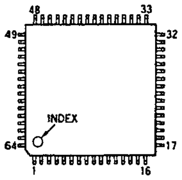
(TOP VIEW)

CXA2101AQ


64
41
65
40
INDEX
80
25
1
24

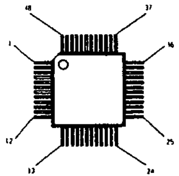
(TOP VIEW)

CXA2112R-T6


48
33
49
32
INDEX
64
17
1
16

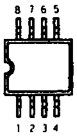
(TOP VIEW)

CXD2064Q-T6
CXA1946AR


48
37
1
36
12
25
13
24

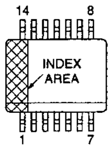
(TOP VIEW)

GS1881-CTA
TC7W14FU (TE12R)
TC7W02FU (TE12R)
BA033FP-E2
TC4W53F
GS4981CTA
LM358P
SN75157
TC7W08FU
TL082CPS-E20
TL431BCDR2
UPC393G2-E2
MC100ELT20DR2
NJM082BM
TC7W14F (TE12R)
SN75453BPSR
ST49C101ACF8-05-TR

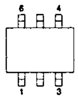


(TOP VIEW)

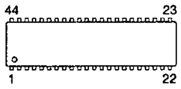
HA4314BCB-E2


14
8
INDEX
AREA
1
7

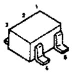
HN1D03FU-TE85R



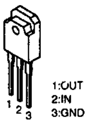
IDT71V016S15PH-TL



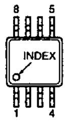
LP29851M5X-3.5
LM7131BCM5X
TC7S04FU
TC7S66FU
TC75S56F (TE85R)
TC7SH14FU (TE85R)



LM2990SX

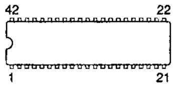

1:OUT
2:IN
3:GND
1
2
3

MAX4223ESA-TG08
M24C64-WMN6T

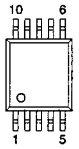


(TOP VIEW)

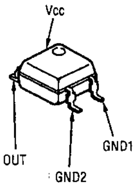
M52749FP-TP



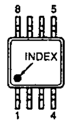
M62438FP-600C



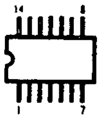
RS-140-T


Vcc
OUT
GND1
GND2

TC7WH04FU (TE12R)

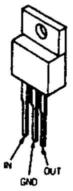


TC74VHC86FT (EL)
TC74HC02AF (EL)
TC74LCX04FT
TC74VHC14FT
TC74LCX125FT

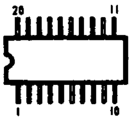


(TOP VIEW)

TA7812F

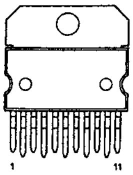


TEA2025D
TC74VHC244F
IMISM530AYB-D
M62399FP-TE2
TC74VHCT541AFT

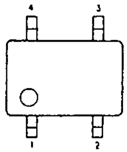


(TOP VIEW)

TDA2009A

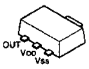


S-80828ANNP-EDR-T2

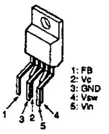


① RESET OUT
② Vcc
③ NC
④ VSS

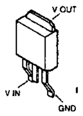
S-80840ANUP-ED4-T2



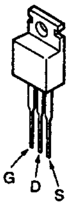
PQ20VZ1U
PQ20VZ5U


1: FB
2: Vc
3: GND
4: Vsw
5: Vin
1
3
2
5
4

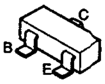
PQ05SZ1U


V OUT
V IN
GND

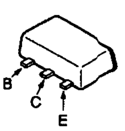
2SA1037K-T-146-R



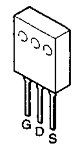
2SA1162-YG-TE85L
2SA1213Y-TE12L
2SA1462
2SA1611T1-M5M6
2SC2412K-T-146-R
2SC2712-YG-TE85L
2SC3326N
2SC3545
DTC114EKA-T146
DTC144EKA-T146



2SC2873Y-TE12L



2SK2198



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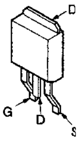
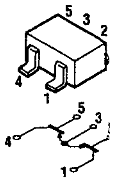
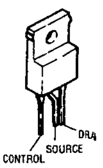


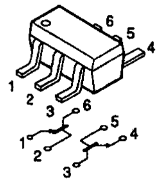
FMS1-T-148



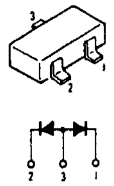
TOP223Y-BB


DRA
SOURCE
CONTROL

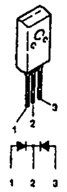
HN1B01FU-TE85R


6
5
4
1
2
3
6
5
4
1
2
3

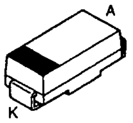
1S2836-T1
DAP202K-T-146
FMG-G2CS



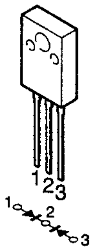
D10SC9M



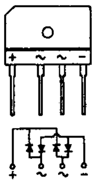
D1FL20U-TA
D1FS4A-TA
D2FL20U



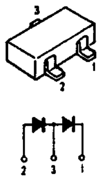
D5LC20U



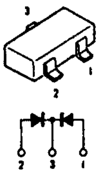
D6SB80



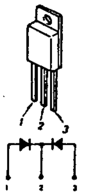
DA204K-T-146
MA157-TX



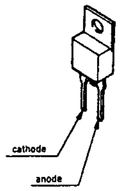
DAN202K-T-146



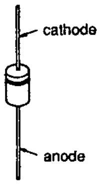
FCQ20A06



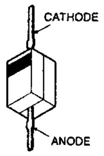
FSF10A60


cathode
anode

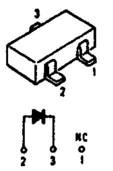
P6KE350A
RM11A


cathode
anode

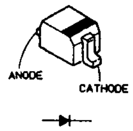
P6KE200AG23
P6KE300A
P6KE350A


CATHODE
ANODE

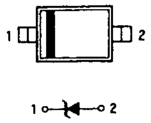
RD12M-T1B2



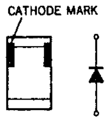
RD4.7SB-T1
UDZ-TE-17-3.3B
1SS355TE-17
MA111
RB501V-40TE-17
RD3.3SB2-T1
RD9.1SB2-T1
UDZ-TE-17-3.9B
D2FS6-TA
RD5.6SB-T1
RD27SB-T1


ANODE
CATHODE

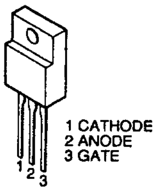
RD5.6SB2-T1



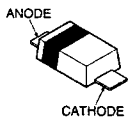
SEC1401C
SEC1801C
SEC1901C
SEC2422C


CATHODE MARK

TF861S


1 CATHODE
2 ANODE
3 GATE
1
2
3

UDZ-TE-17-2.2B
UDZ-TE-17-27B


ANODE
CATHODE

Section 6
Exploded Views

NOTE :

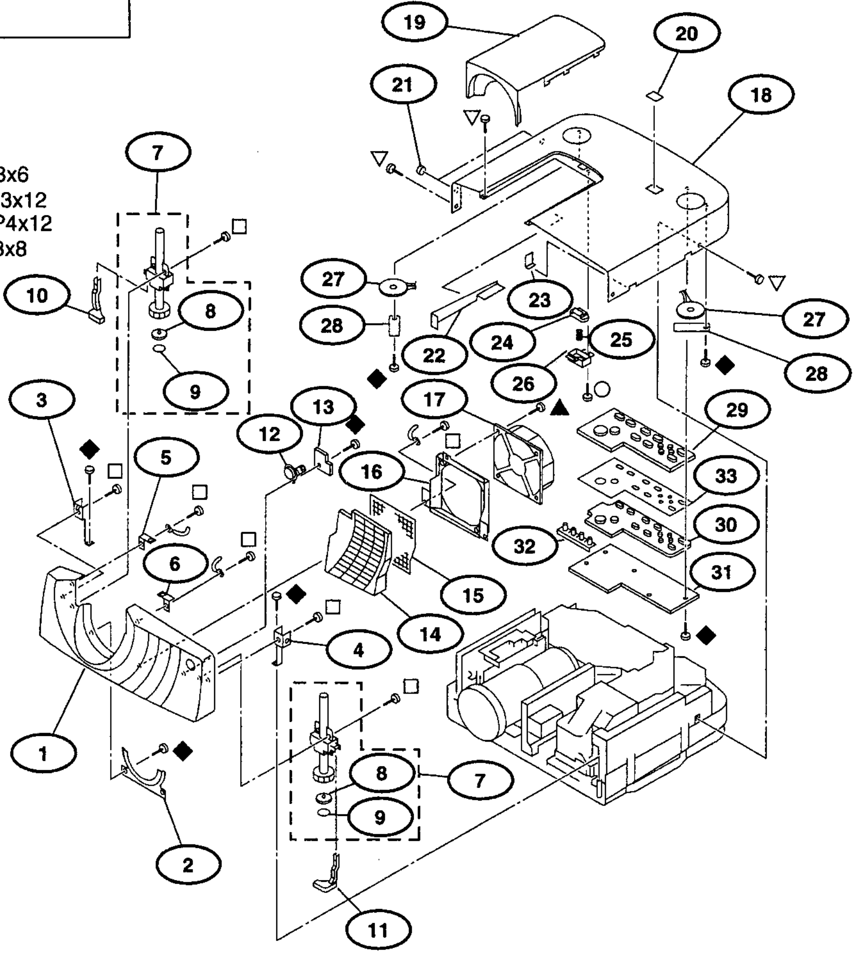
The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

6-1. Cabinet

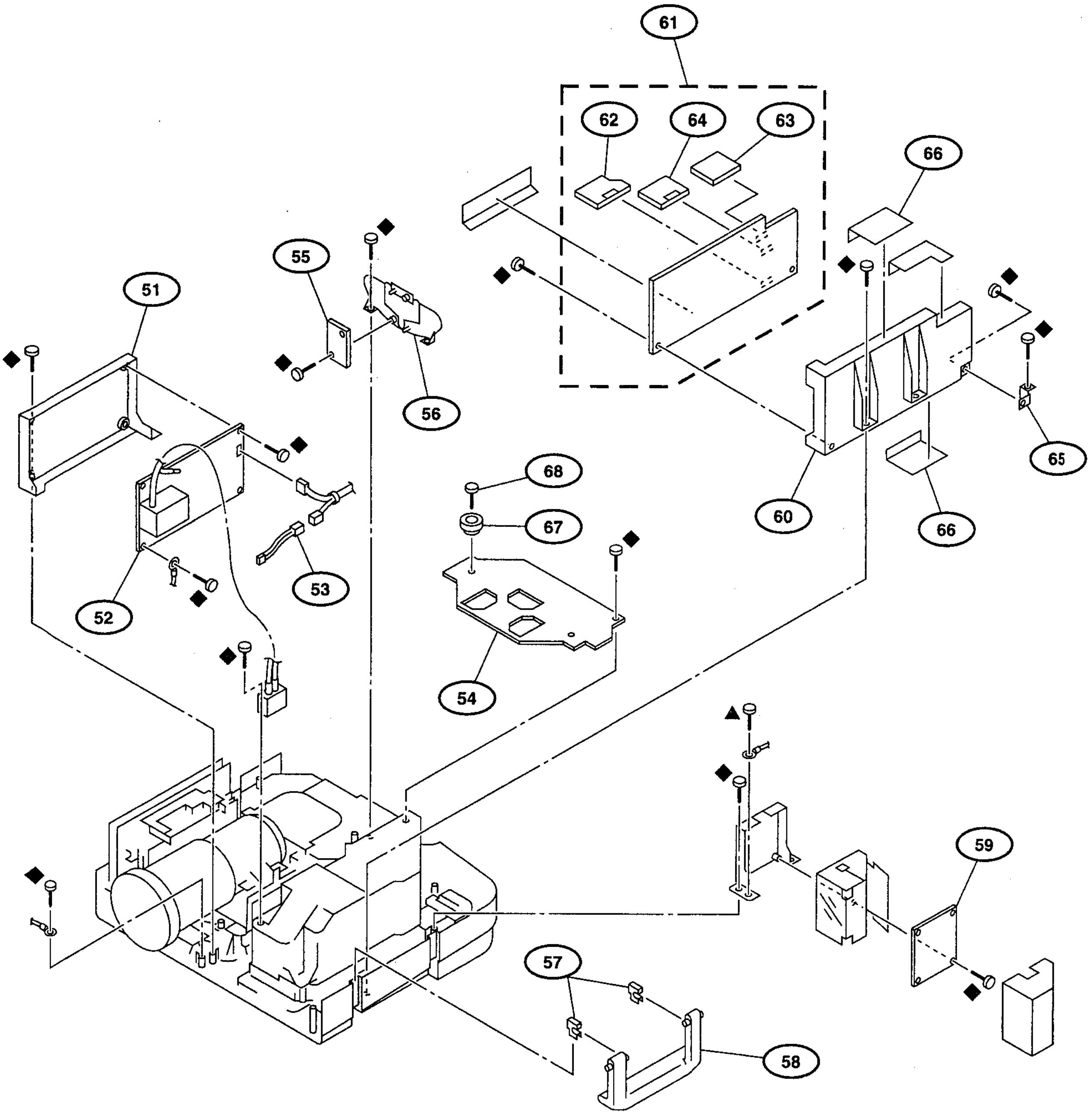
○ : 7-682-148-01 +P3x8
◆ : 7-682-903-11 +PWH3x6
□ : 7-685-648-79 +PVTP3x12
▲ : 7-682-663-09 +BSWP4x12
▽ : 7-682-548-04 +PWH3x8



REF NO.		PART NO.	DESCRIPTION	REMARK
1	*	X-4037-378-1	COVER ASSY, FRONT	
2		4-073-765-01	COVER (BT), LENS	
3	*	4-073-760-01	HOLDER (FBHL)	
4	*	4-073-759-01	HOLDER (FBHR)	
5	*	4-073-763-01	HOLDER (FHL)	
6	*	4-073-762-01	HOLDER (FHR)	
7		X-4037-376-1	ADJUSTER ASSY	8, 9
8		4-073-784-01	SHAFT, ADJUSTABLE	
9		4-073-783-01	SHEET, UR	
10		4-073-767-01	LEVER (L), ADJUSTER	
11		4-073-766-01	LEVER (R), ADJUSTER	
12	*	4-073-758-01	RM (FR)	
13	*	1-675-457-11	NF BOARD	
14	*	4-073-772-01	DUCT, FAN	
15	*	4-073-771-01	NET, FAN	
16	*	4-073-770-01	HOLDER, FAN	
17		1-763-422-11	FAN, DC	
18	*	4-073-768-01	HOOD	
19	*	4-073-764-01	COVER (TP), LENS	
20	*	4-073-773-01	EMBLEM (PX30)	
21	*	4-063-685-01	FOOT	
22	*	4-073-774-01	GUARD (H1), LIGHTING	
23	*	4-073-775-01	SPACER (H)	
24	*	4-063-672-01	STOPPER (LCT)	
25	*	4-063-686-01	SPRING, COMPRESSION	
26	*	4-063-673-01	HOLDER (LCT)	
27		1-529-499-11	SPEAKER (4.5CM)	
28	*	4-073-777-01	HOLDER (T), SP	
29		4-073-747-01	BUTTON, CONTROL	
30	*	4-073-748-01	GUIDE, BUTTON	
31	*	A-1375-193-A	H COMPL	
32	*	4-073-746-01	GUIDE, LED	
33	*	4-074-574-01	GUID (H2), LIGHTING	

6-2. Chassis Block

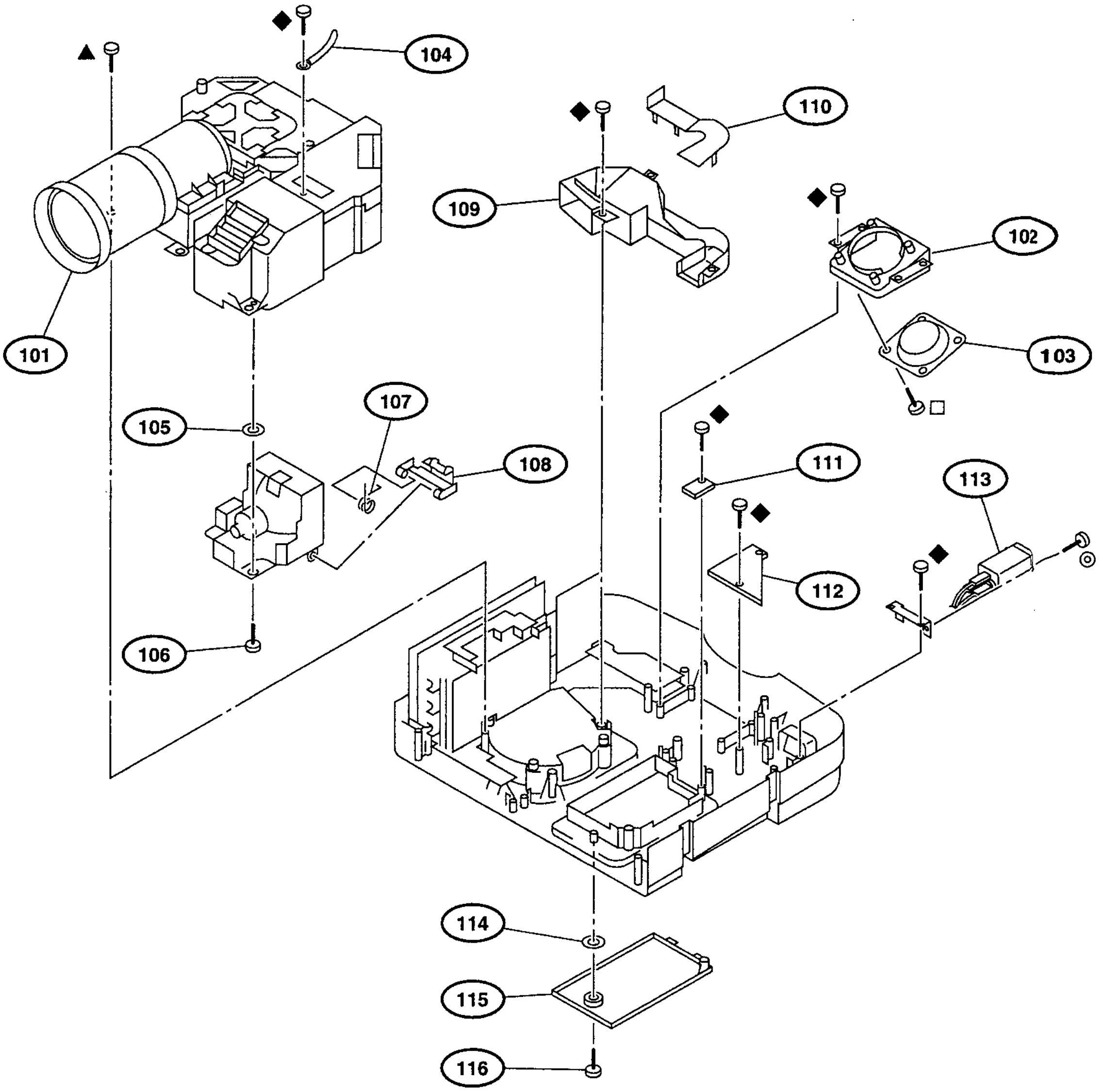
◆ : 7-682-903-01 +PWH3x6
▲ : 7-685-663-09 +PSW4x12



REF NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-073-731-01	HOLDER (L)	
52	⚠ 1-468-445-11	POWER BLOCK	
53	1-900-249-68	CONNECTOR ASSY, FUSE 2P	
54	* A-1335-121-A	C COMPL	
55	* A-1390-974-A	NR MOUNT	
56	* X-4037-377-1	RM (ER) ASSY	
57	* 4-073-752-01	BUSH, HANDLE	
58	4-073-753-01	HANDLE	
59	* A-1241-395-A	F MOUNT	
60	* 4-073-730-01	HOLDER (G)	
61	* A-1316-486-A	GA COMPL	62-64
62	* A-1316-485-A	GD COMPL	
63	* A-1316-484-A	GC COMPL	
64	* A-1316-487-A	GB COMPL	
65	* 4-073-735-01	PLATE (G), EARTH	
66	* 4-073-990-01	SHEET (G2), INSULATOR	
67	4-074-968-01	SPACER (C)	
68	3-701-809-31	SCREW, TERMINAL (M3X8)	

6-3. Optics Unit

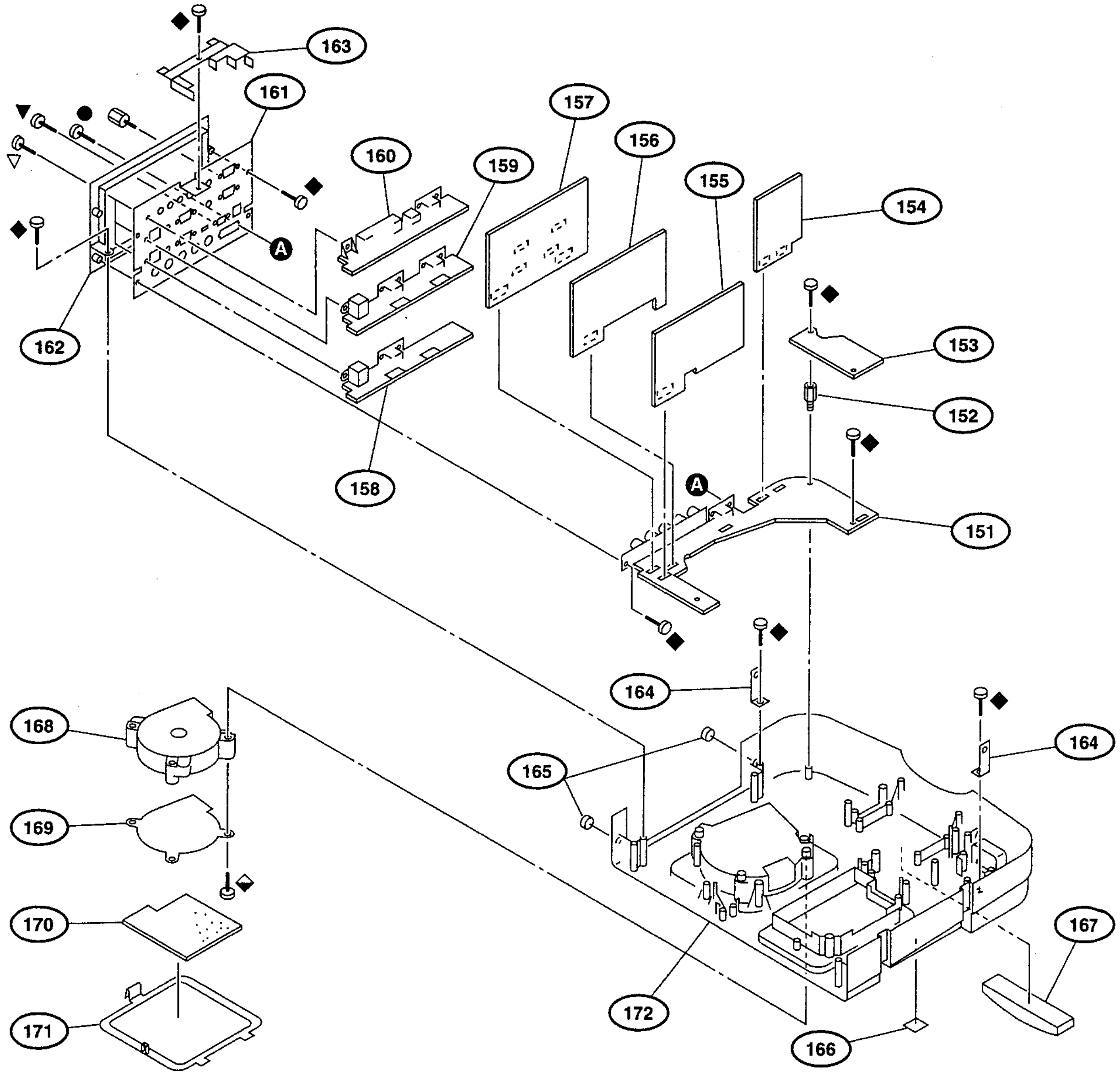
◎ : 7-682-246-09 +K3x5
◆ : 7-682-903-11 +BWH3x6
□ : 7-685-648-79 +BVTP3x12
▲ : 7-682-663-09 +PSW4x12



REF NO.	PART NO.	DESCRIPTION	REMARK
101	1-758-440-11	OPTICAL UNIT (VPL-PX30)	
	1-758-452-11	OPTICAL UNIT (VPL-PX20)	
102	* 4-073-740-01	HOLDER (L), SPEAKER	
103	1-505-600-11	SPEAKER (065W004)	
104	3-701-822-01	HOLDER, WIRE	
105	* 3-715-526-01	WASHER (M3)	
106	4-066-202-01	SCREW, M3	
107	* 4-073-788-01	SPRING, DOOR	
108	* 4-073-787-01	DOOR, DUCT	
109	* 4-073-729-01	DUCT	
110	* 4-073-728-01	COVER, DUCT	
111	* A-1390-975-A	S MOUNT	
112	* A-1385-189-A	K COMPL	
113 ⚠	1-526-813-12	INLET, AC (3P)	
115	* 4-073-750-01	LAMP COVER	
116	4-073-989-01	SCREW (+B M3X12), PREVENTION	

6-4. Base Block

◆: 7-682-903-11 +PWH3x6
●: 7-621-259-52 +P2.6x8
▼: 7-621-772-38 +B2x6
⬙: 7-682-568-09 +B4x13
▽: 7-682-548-04 +PWH3x8


163
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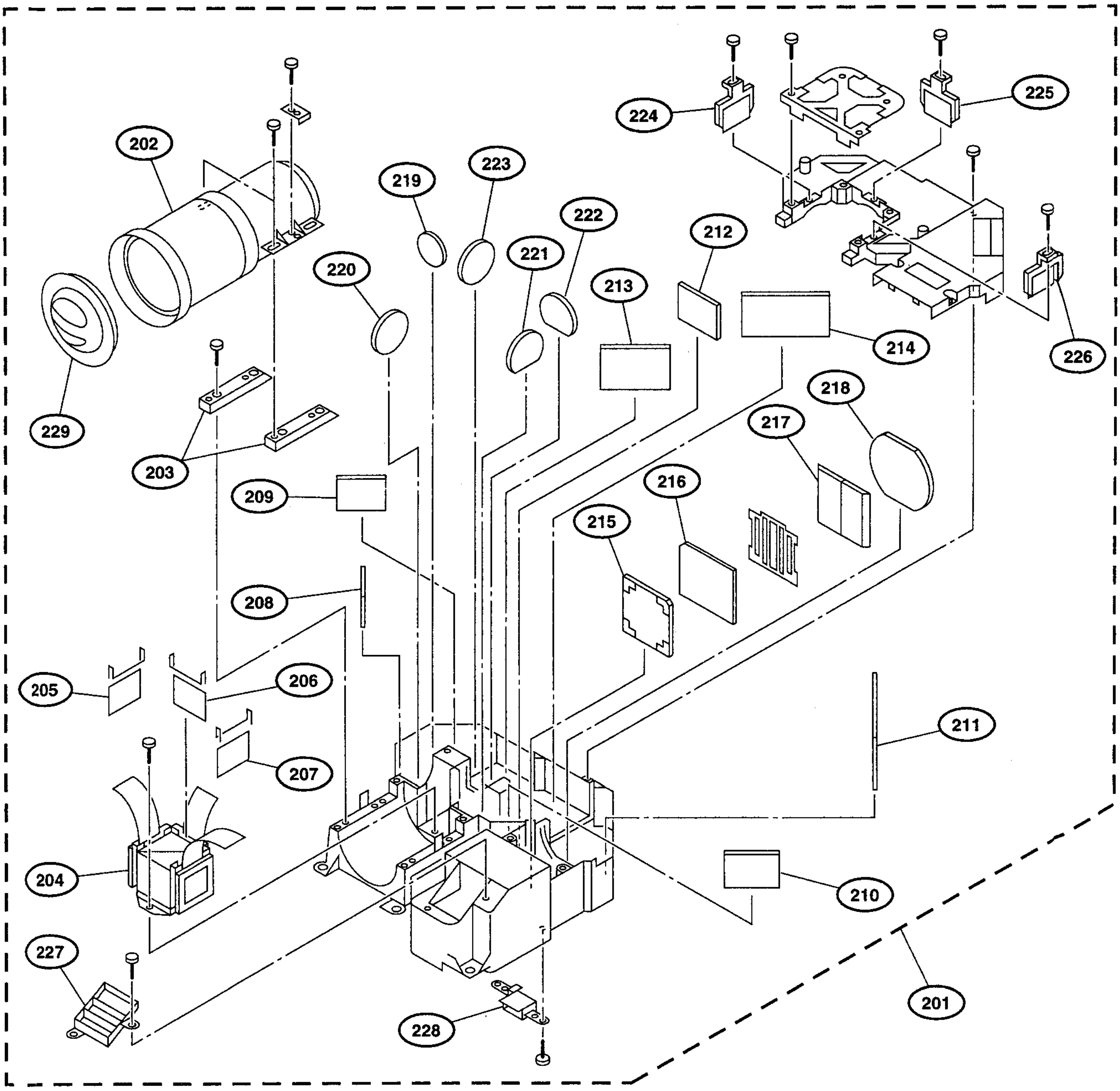
REF NO.	PART NO.	DESCRIPTION	REMARK
151	* A-1136-039-A	BB COMPL	
152	4-066-549-11	SPACER	
153	* A-1385-190-A	KS COMPL	
154	* A-1136-040-A	BC COMPL	
155	* A-1394-958-A	Y COMPL	
156	* A-1136-038-A	BA COMPL	
157	* A-1275-178-A	QA COMPL	
158	* A-1275-180-A	QB COMPL	
159	* A-1275-179-A	QC COMPL	
160	* A-1275-181-A	QD COMPL	
161	* 4-073-744-01	PANEL, CONNECTOR	
162	* 4-073-745-01	HOLDER, CONNECTOR PANEL	
163	* 4-073-749-01	HOLDER, PWB	
164	* 4-073-761-01	HOLDER (BH)	
165	* 4-063-685-01	FOOT	
166	* 4-073-751-01	CUSHION, HANDLE	
167	* 4-073-741-01	FOOT (RE)	
168	1-763-417-11	FAN, DC	
169	* 4-073-739-01	GUARD, FAN	
170	4-073-737-01	FILTER	
171	* 4-073-738-01	COVER, FILTER	
172	* X-4037-413-1	BASE ASSY	

6-5. Optical unit



REF NO.	PART NO.	DESCRIPTION	REMARK
201	1-758-440-11	OPTICAL UNIT (VPL-PX30)	202-229
	1-758-452-11	OPTICAL UNIT (VPL-PX20)	202-229
202	9-885-000-52	PROJECTION LENS	
203	9-885-000-65	SPACER	
204	1-758-459-11	PRISM BLOCK	
205	9-885-000-76	POLORIZER, G-OUT PLATE	
206	9-885-000-72	POLORIZER, G-OUT PLATE	
207	9-885-000-74	POLORIZER, G-OUT PLATE	
208	* 9-885-000-63	MIRROR C	
209	* 9-885-000-62	MIRROR B	
210	* 9-885-000-64	MIRROR D	
211	* 9-885-000-61	MIRROR A	
212	* 9-885-000-69	UV PROOF GLASS	
213	* 9-885-000-60	G REFLECTION DICHROIC MIRROR	
214	* 9-885-000-59	B REFLECTION DICHROIC MIRROR	
215	9-885-000-53	LENS A, FLYEYE	
216	* 9-885-000-54	LENS B, FLYEYE	
217	9-885-000-55	FLYEYE/PS CONVERTER LENS	
218	* 9-885-000-66	MAIN CONDENSER LENS	
219	* 9-885-000-68	LENS B, RELAY	
220	9-885-000-58	POLARIZER, R/CONDENSER LENS	
221	9-885-000-57	POLARIZER, B/CONDENSER LENS	
222	9-885-000-56	POLARIZER, G/CONDENSER LENS	
223	* 9-885-000-67	LENS A, RELAY	
224	9-885-000-75	POLORIZER, R-IN PLATE	
225	9-885-000-71	POLORIZER, G-IN PLATE	
226	9-885-000-73	POLORIZER, B-IN PLATE	
227	4-073-776-01	GUARD (L), LIGHTING	
228	4-073-785-01	DUCT (F)	
229	9-885-000-70	CAP, LENS	

Section 7
Electrical Parts List

NOTE :

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

RESISTORS
- All resistors are in ohms.
- F: nonflammable
- METAL: Metal-film resistor
- METAL OXIDE: Metal oxide-film resistor

Ref.No.	Part No.	Description			Remark
	* A-1136-038-A	BA COMPL			
		**********************			
	<CAPACITOR>				
C101	1-131-998-21	TANTALUM	82µF	20%	6.3V
C102	1-128-065-11	ELECT CHIP	68µF	20%	10V
C103	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C104	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C105	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C106	1-128-004-11	ELECT CHIP	10µF	20%	16V
C107	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C108	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C109	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C110	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C111	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C112	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C114	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C115	1-131-998-21	TANTALUM	82µF	20%	6.3V
C116	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C117	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C118	1-127-820-91	CERAMIC	4.7µF	0	16V
C119	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C120	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C121	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C122	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C123	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C124	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C125	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C126	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C127	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C128	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C131	1-115-565-11	CERAMIC CHIP	2.2µF	10%	10V
C133	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C136	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C137	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C138	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C139	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C140	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C141	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C142	1-128-004-11	ELECT CHIP	10µF	20%	16V
C143	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C144	1-128-065-11	ELECT CHIP	68µF	20%	10V
C145	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C146	1-128-065-11	ELECT CHIP	68µF	20%	10V
C147	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C149	1-126-204-11	ELECT CHIP	47µF	20%	16V
C150	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C151	1-128-004-11	ELECT CHIP	10µF	20%	16V
C152	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C153	1-126-204-11	ELECT CHIP	47µF	20%	16V
C154	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C155	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C156	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C157	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C158	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C159	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C160	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C161	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C162	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C163	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C164	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C165	1-128-004-11	ELECT CHIP	10µF	20%	16V
C166	1-128-004-11	ELECT CHIP	10µF	20%	16V
C167	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C168	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C169	1-128-065-11	ELECT CHIP	68µF	20%	10V
C170	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C171	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C172	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C173	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C174	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C175	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C176	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C177	1-128-004-11	ELECT CHIP	10µF	20%	16V
C178	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C179	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C180	1-128-004-11	ELECT CHIP	10µF	20%	16V
C181	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C182	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C183	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C184	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C185	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C186	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C187	1-126-204-11	ELECT CHIP	47µF	20%	16V
C188	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C189	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C190	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C191	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C192	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V

BA

Ref.No.	Part No.	Description	Remark
C193	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C194	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C195	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C196	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C197	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C198	1-128-013-11	ELECT CHIP 1μF 20% 50V	
C199	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C200	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C201	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C202	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C203	1-163-021-91	CERAMIC CHIP 0.01μF 10% 50V	
C204	1-128-013-11	ELECT CHIP 1μF 20% 50V	
C205	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C206	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C207	1-126-205-11	ELECT CHIP 47μF 20% 6.3V	
C208	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C209	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C210	1-163-245-11	CERAMIC CHIP 56PF 5% 50V	
C211	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C212	1-126-206-11	ELECT CHIP 100μF 20% 6.3V	
C213	1-165-319-11	CERAMIC CHIP 0.1μF 50V	
C214	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C215	1-163-245-11	CERAMIC CHIP 56PF 5% 50V	
C216	1-128-004-11	ELECT CHIP 10μF 20% 16V	
C218	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C219	1-163-245-11	CERAMIC CHIP 56PF 5% 50V	
C220	1-163-021-91	CERAMIC CHIP 0.01μF 10% 50V	
C221	1-126-204-11	ELECT CHIP 47μF 20% 16V	
C222	1-126-204-11	ELECT CHIP 47μF 20% 16V	
C223	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C224	1-163-021-91	CERAMIC CHIP 0.01μF 10% 50V	
C225	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C226	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C227	1-107-823-11	CERAMIC CHIP 0.47μF 10% 16V	
C239	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C240	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C241	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C242	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C243	1-163-037-11	CERAMIC CHIP 0.022μF 10% 50V	
C244	1-163-009-11	CERAMIC CHIP 0.001μF 10% 50V	
C250	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C251	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C252	1-126-204-11	ELECT CHIP 47μF 20% 16V	
C253	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C254	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C256	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C257	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C258	1-135-346-21	TANTALUM 39μF 20% 16V	
C259	1-126-204-11	ELECT CHIP 47μF 20% 16V	
C260	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C261	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C263	1-128-065-11	ELECT CHIP 68μF 20% 10V	
C264	1-128-065-11	ELECT CHIP 68μF 20% 10V	
C265	1-164-004-11	CERAMIC CHIP 0.1μF 10% 25V	
C266	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C267	1-117-681-11	ELECT CHIP 100μF 20% 16V	
	<CONNECTOR>		
CN101	* 1-793-797-21	CONNECTOR, BOARD TO BOARD	
CN102	* 1-580-789-21	PIN, CONNECTOR (SMD) 6P	
	<DIODE>		
D101	8-719-988-61	DIODE 1SS355TE-17	

Ref.No.	Part No.	Description	Remark
	<FILTER>		
FL100	1-233-736-21	FILTER, EMI	
FL101	1-233-736-21	FILTER, EMI	
FL102	1-233-736-21	FILTER, EMI	
FL106	1-233-736-21	FILTER, EMI	
FL107	1-233-736-21	FILTER, EMI	
FL251	1-239-466-21	FILTER, EMI	
	<IC>		
IC101	8-752-094-47	IC CXA2123AQ-T6	
IC102	8-752-086-33	IC CXA2101AQ-TL	
IC103	8-759-242-64	IC TC4W53F	
IC105	8-759-031-84	IC SC7S04F	
IC106	8-759-031-84	IC SC7S04F	
IC221	8-752-390-37	IC CXD2064Q-T6	
IC250	8-752-072-94	IC CXA1875AM-T4	
IC251	8-759-242-64	IC TC4W53F	
IC252	8-759-031-84	IC SC7S04F	
IC253	8-759-494-88	IC TC75S56F(TE85R)	
IC254	8-759-084-79	IC TC7S14F	
IC255	8-759-460-79	IC BA09FP-E2	
IC256	8-759-344-12	IC GS4981CTA	
IC257	8-759-038-15	IC MC74HC4538AF	
IC258	8-759-157-17	IC PQ05SZ1U	
IC259	8-759-433-92	IC TC7W14F-TE12L	
	<COIL>		
L100	1-412-058-11	INDUCTOR CHIP	10μH
L101	1-412-058-11	INDUCTOR CHIP	10μH
L102	1-412-058-11	INDUCTOR CHIP	10μH
L103	1-412-058-11	INDUCTOR CHIP	10μH
L104	1-412-058-11	INDUCTOR CHIP	10μH
L105	1-412-058-11	INDUCTOR CHIP	10μH
L106	1-412-363-21	FERRITE	0μH
L108	1-412-363-21	FERRITE	0μH
L109	1-412-363-21	FERRITE	0μH
L110	1-410-389-31	INDUCTOR CHIP	47μH
L111	1-410-385-11	INDUCTOR CHIP	22μH
L112	1-410-383-31	INDUCTOR CHIP	15μH
L113	1-410-383-31	INDUCTOR CHIP	15μH
L251	1-409-556-11	INDUCTOR	47μH
	<TRANSISTOR>		
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q108	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q110	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q111	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q112	8-729-902-96	TRANSISTOR FMS1	
Q113	8-729-902-96	TRANSISTOR FMS1	
Q114	8-729-902-96	TRANSISTOR FMS1	
Q115	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q116	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q117	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q118	8-729-216-22	TRANSISTOR 2SA1162-G	
Q119	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q120	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q121	8-729-216-22	TRANSISTOR 2SA1162-G	
Q122	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q123	8-729-216-22	TRANSISTOR 2SA1162-G	
Q124	8-729-230-49	TRANSISTOR 2SC2712-YG	

Ref.No.	Part No.	Description			Remark
Q125	8-729-216-22	TRANSISTOR 2SA1162-G			
Q126	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q127	8-729-216-22	TRANSISTOR 2SA1162-G			
Q128	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q129	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q130	8-729-216-22	TRANSISTOR 2SA1162-G			
	<RESISTOR>				
R102	1-216-077-91	RES,CHIP	15K	5%	1/10W
R104	1-216-049-91	RES,CHIP	1K	5%	1/10W
R105	1-216-678-11	METAL CHIP	13K	0.50%	1/10W
R106	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R107	1-216-049-91	RES,CHIP	1K	5%	1/10W
R108	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R109	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R110	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R111	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R112	1-216-619-11	METAL CHIP	47	0.50%	1/10W
R113	1-216-081-00	RES,CHIP	22K	5%	1/10W
R114	1-216-081-00	RES,CHIP	22K	5%	1/10W
R115	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R116	1-216-295-91	SHORT	0		
R118	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R119	1-208-796-11	METAL CHIP	3.9K	0.50%	1/10W
R120	1-216-025-91	RES,CHIP	100	5%	1/10W
R121	1-216-017-91	RES,CHIP	47	5%	1/10W
R122	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R123	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R124	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R125	1-216-047-91	RES,CHIP	820	5%	1/10W
R126	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R127	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R130	1-216-025-91	RES,CHIP	100	5%	1/10W
R131	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R132	1-216-025-91	RES,CHIP	100	5%	1/10W
R133	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R134	1-216-025-91	RES,CHIP	100	5%	1/10W
R136	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R137	1-216-049-91	RES,CHIP	1K	5%	1/10W
R138	1-216-295-91	SHORT	0		
R139	1-216-295-91	SHORT	0		
R140	1-216-081-00	RES,CHIP	22K	5%	1/10W
R141	1-216-081-00	RES,CHIP	22K	5%	1/10W
R142	1-216-295-91	SHORT	0		
R143	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R147	1-216-049-91	RES,CHIP	1K	5%	1/10W
R148	1-216-025-91	RES,CHIP	100	5%	1/10W
R149	1-216-295-91	SHORT	0		
R150	1-216-025-91	RES,CHIP	100	5%	1/10W
R151	1-216-017-91	RES,CHIP	47	5%	1/10W
R152	1-216-047-91	RES,CHIP	820	5%	1/10W
R153	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R154	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R155	1-216-049-91	RES,CHIP	1K	5%	1/10W
R156	1-216-049-91	RES,CHIP	1K	5%	1/10W
R157	1-216-049-91	RES,CHIP	1K	5%	1/10W
R158	1-216-083-00	RES,CHIP	27K	5%	1/10W
R159	1-216-089-91	RES,CHIP	47K	5%	1/10W
R160	1-216-017-91	RES,CHIP	47	5%	1/10W
R161	1-216-025-91	RES,CHIP	100	5%	1/10W
R162	1-216-025-91	RES,CHIP	100	5%	1/10W
R163	1-216-133-00	RES,CHIP	3.3M	5%	1/10W
R164	1-216-039-00	RES,CHIP	390	5%	1/10W
R165	1-216-295-91	SHORT	0		
R166	1-216-039-00	RES,CHIP	390	5%	1/10W
R167	1-216-295-91	SHORT	0		

Ref.No.	Part No.	Description			Remark
R168	1-216-017-91	RES,CHIP	47	5%	1/10W
R169	1-216-017-91	RES,CHIP	47	5%	1/10W
R170	1-216-041-00	RES,CHIP	470	5%	1/10W
R172	1-216-041-00	RES,CHIP	470	5%	1/10W
R174	1-216-041-00	RES,CHIP	470	5%	1/10W
R176	1-216-017-91	RES,CHIP	47	5%	1/10W
R177	1-216-017-91	RES,CHIP	47	5%	1/10W
R178	1-216-017-91	RES,CHIP	47	5%	1/10W
R179	1-216-017-91	RES,CHIP	47	5%	1/10W
R180	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R181	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R182	1-216-070-00	RES,CHIP	7.5K	5%	1/10W
R183	1-216-017-91	RES,CHIP	47	5%	1/10W
R184	1-216-017-91	RES,CHIP	47	5%	1/10W
R185	1-216-017-91	RES,CHIP	47	5%	1/10W
R186	1-216-077-91	RES,CHIP	15K	5%	1/10W
R187	1-216-017-91	RES,CHIP	47	5%	1/10W
R188	1-216-017-91	RES,CHIP	47	5%	1/10W
R189	1-216-073-00	RES,CHIP	10K	5%	1/10W
R190	1-216-037-00	RES,CHIP	330	5%	1/10W
R191	1-216-017-91	RES,CHIP	47	5%	1/10W
R192	1-216-017-91	RES,CHIP	47	5%	1/10W
R193	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R194	1-216-073-00	RES,CHIP	10K	5%	1/10W
R195	1-216-017-91	RES,CHIP	47	5%	1/10W
R196	1-216-073-00	RES,CHIP	10K	5%	1/10W
R197	1-216-037-00	RES,CHIP	330	5%	1/10W
R198	1-216-017-91	RES,CHIP	47	5%	1/10W
R202	1-216-017-91	RES,CHIP	47	5%	1/10W
R203	1-216-017-91	RES,CHIP	47	5%	1/10W
R204	1-216-017-91	RES,CHIP	47	5%	1/10W
R205	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R206	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R207	1-216-017-91	RES,CHIP	47	5%	1/10W
R208	1-216-081-00	RES,CHIP	22K	5%	1/10W
R209	1-216-017-91	RES,CHIP	47	5%	1/10W
R210	1-216-017-91	RES,CHIP	47	5%	1/10W
R211	1-216-017-91	RES,CHIP	47	5%	1/10W
R212	1-216-017-91	RES,CHIP	47	5%	1/10W
R213	1-216-081-00	RES,CHIP	22K	5%	1/10W
R214	1-216-037-00	RES,CHIP	330	5%	1/10W
R215	1-216-629-11	METAL CHIP	120	0.50%	1/10W
R216	1-216-629-11	METAL CHIP	120	0.50%	1/10W
R217	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R224	1-216-025-91	RES,CHIP	100	5%	1/10W
R225	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R226	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R227	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R228	1-216-035-00	RES,CHIP	270	5%	1/10W
R229	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R230	1-216-047-91	RES,CHIP	820	5%	1/10W
R231	1-216-025-91	RES,CHIP	100	5%	1/10W
R232	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R233	1-216-035-00	RES,CHIP	270	5%	1/10W
R234	1-216-017-91	RES,CHIP	47	5%	1/10W
R235	1-216-047-91	RES,CHIP	820	5%	1/10W
R236	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R238	1-216-017-91	RES,CHIP	47	5%	1/10W
R250	1-216-073-00	RES,CHIP	10K	5%	1/10W
R251	1-216-073-00	RES,CHIP	10K	5%	1/10W
R252	1-216-073-00	RES,CHIP	10K	5%	1/10W
R253	1-216-073-00	RES,CHIP	10K	5%	1/10W
R254	1-216-025-91	RES,CHIP	100	5%	1/10W
R255	1-216-025-91	RES,CHIP	100	5%	1/10W
R256	1-216-025-91	RES,CHIP	100	5%	1/10W
R257	1-216-025-91	RES,CHIP	100	5%	1/10W
R258	1-216-025-91	RES,CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R259	1-216-017-91	RES,CHIP	47	5%	1/10W
R260	1-216-025-91	RES,CHIP	100	5%	1/10W
R261	1-216-017-91	RES,CHIP	47	5%	1/10W
R262	1-216-017-91	RES,CHIP	47	5%	1/10W
R263	1-216-017-91	RES,CHIP	47	5%	1/10W
R264	1-216-017-91	RES,CHIP	47	5%	1/10W
R265	1-216-017-91	RES,CHIP	47	5%	1/10W
R266	1-216-017-91	RES,CHIP	47	5%	1/10W
R267	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R268	1-218-762-11	METAL CHIP	270K	0.50%	1/10W
R269	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R270	1-216-017-91	RES,CHIP	47	5%	1/10W
R271	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R272	1-216-041-00	RES,CHIP	470	5%	1/10W
R273	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R274	1-216-017-91	RES,CHIP	47	5%	1/10W
R275	1-216-017-91	RES,CHIP	47	5%	1/10W
R276	1-216-073-00	RES,CHIP	10K	5%	1/10W
R277	1-216-025-91	RES,CHIP	100	5%	1/10W
R278	1-216-017-91	RES,CHIP	47	5%	1/10W
R279	1-216-017-91	RES,CHIP	47	5%	1/10W
R280	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R281	1-216-041-00	RES,CHIP	470	5%	1/10W
R282	1-216-035-00	RES,CHIP	270	5%	1/10W
R283	1-216-047-91	RES,CHIP	820	5%	1/10W
R284	1-216-017-91	RES,CHIP	47	5%	1/10W
R285	1-216-017-91	RES,CHIP	47	5%	1/10W
R288	1-216-295-91	SHORT	0		
R289	1-216-295-91	SHORT	0		
R290	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R291	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R292	1-216-295-91	SHORT	0		
R294	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R295	1-216-091-00	RES,CHIP	56K	5%	1/10W
R296	1-216-043-91	RES,CHIP	560	5%	1/10W

<TEST PIN>

Ref.No.	Part No.	Description
TP100	1-535-757-11	CHIP, CHECKER
TP101	1-535-757-11	CHIP, CHECKER
TP102	1-535-757-11	CHIP, CHECKER
TP103	1-535-757-11	CHIP, CHECKER
TP104	1-535-757-11	CHIP, CHECKER
TP105	1-535-757-11	CHIP, CHECKER
TP106	1-535-757-11	CHIP, CHECKER
TP107	1-535-757-11	CHIP, CHECKER
TP108	1-535-757-11	CHIP, CHECKER
TP109	1-535-757-11	CHIP, CHECKER
TP110	1-535-757-11	CHIP, CHECKER
TP111	1-535-757-11	CHIP, CHECKER
TP112	1-535-757-11	CHIP, CHECKER
TP113	1-535-757-11	CHIP, CHECKER
TP114	1-535-757-11	CHIP, CHECKER
TP115	1-535-757-11	CHIP, CHECKER
TP116	1-535-757-11	CHIP, CHECKER

<CRYSTAL>

Ref.No.	Part No.	Description
X100	1-781-730-21	VIBRATOR, CRYSTAL (16.2MHz)

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* A-1136-039-A BB COMPL

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<CAPACITOR>

Ref.No.	Part No.	Description			Remark
C301	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C302	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C303	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C304	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C305	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C306	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C307	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C309	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C310	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C311	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C313	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C314	1-119-667-11	CERAMIC CHIP	22μF		10V
C316	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C317	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C318	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C319	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C320	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C321	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V
C322	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C323	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V
C324	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C325	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C326	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C327	1-165-176-11	CERAMIC CHIP	0.047μF	10%	16V
C328	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C329	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C330	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C331	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C332	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C333	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C334	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C335	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C336	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C337	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C338	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C339	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C340	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C341	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C342	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C344	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C345	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C346	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C347	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C348	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C349	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C350	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C351	1-164-505-11	CERAMIC CHIP	2.2μF		16V
C352	1-119-667-11	CERAMIC CHIP	22μF		10V
C353	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C354	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C355	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C356	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C357	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C358	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C359	1-164-677-11	CERAMIC CHIP	0.033μF	10%	16V
C360	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C361	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C362	1-162-920-11	CERAMIC CHIP	27PF	5%	50V

Ref.No.	Part No.	Description				Remark
C363	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C365	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V	
C366	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C367	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C368	1-126-205-11	ELECT CHIP	47µF	20%	6.3V	
C369	1-126-205-11	ELECT CHIP	47µF	20%	6.3V	
C370	1-117-681-11	ELECT CHIP	100µF	20%	16V	
C371	1-126-205-11	ELECT CHIP	47µF	20%	6.3V	
C372	1-128-391-11	ELECT CHIP	330µF	20%	6.3V	
C373	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C374	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C375	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C376	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C377	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C378	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C379	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C380	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C381	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C382	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C383	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C384	1-119-667-11	CERAMIC CHIP	22µF		10V	
C385	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C386	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C387	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C388	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C389	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C391	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C392	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C393	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C394	1-119-667-11	CERAMIC CHIP	22µF		10V	
C395	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C396	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C397	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C399	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C400	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C401	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C402	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C403	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C404	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C405	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C406	1-164-505-11	CERAMIC CHIP	2.2µF		16V	
C408	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C409	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V	
C412	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V	
C413	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V	
C421	1-164-505-11	CERAMIC CHIP	2.2µF		16V	
C422	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C423	1-117-681-11	ELECT CHIP	100µF	20%	16V	
	<CONNECTOR>					
CN300	1-778-465-11	SOCKET, CONNECTOR 20P				
CN301	* 1-785-306-21	CONNECTOR, BOARD TO BOARD70P				
CN303	* 1-785-306-21	CONNECTOR, BOARD TO BOARD70P				
CN304	1-694-649-11	TERMINAL BOARD ASSY, INPUT/OUT				
CN305	* 1-785-306-21	CONNECTOR, BOARD TO BOARD70P				
CN306	* 1-793-798-21	CONNECTOR, BOARD TO BOARD				
CN307	* 1-785-306-21	CONNECTOR, BOARD TO BOARD70P				
CN308	* 1-764-007-11	PIN, CONNECTOR (SMD) 12P				
CN309	* 1-793-798-21	CONNECTOR, BOARD TO BOARD				
CN310	* 1-695-223-21	PIN, CONNECTOR (SMD) 10P				
CN311	* 1-793-798-21	CONNECTOR, BOARD TO BOARD				
CN312	* 1-764-177-11	PIN, CONNECTOR (SMD)(1.5MM) 7P				

Ref.No.	Part No.	Description		Remark
	<DIODE>			
D300	8-719-024-77	DIODE HN1D03FU-TE85L		
D301	8-719-024-77	DIODE HN1D03FU-TE85L		
D302	8-719-024-77	DIODE HN1D03FU-TE85L		
D303	8-719-024-77	DIODE HN1D03FU-TE85L		
D314	8-719-024-77	DIODE HN1D03FU-TE85L		
D315	8-719-024-77	DIODE HN1D03FU-TE85L		
D316	8-719-073-01	DIODE MA111-(K8).S0		
D317	8-719-073-01	DIODE MA111-(K8).S0		
D318	8-719-977-95	DIODE DTZ-TT11-2.4B		
	<FERRITE BEAD>			
FB300	1-414-921-11	INDUCTOR CHIP	0µH	
FB301	1-414-921-11	INDUCTOR CHIP	0µH	
FB302	1-414-921-11	INDUCTOR CHIP	0µH	
FB304	1-414-921-11	INDUCTOR CHIP	0µH	
FB307	1-414-921-11	INDUCTOR CHIP	0µH	
FB308	1-414-921-11	INDUCTOR CHIP	0µH	
FB311	1-414-921-11	INDUCTOR CHIP	0µH	
FB313	1-414-921-11	INDUCTOR CHIP	0µH	
FB314	1-414-921-11	INDUCTOR CHIP	0µH	
FB315	1-414-921-11	INDUCTOR CHIP	0µH	
FB316	1-414-921-11	INDUCTOR CHIP	0µH	
FB317	1-414-921-11	INDUCTOR CHIP	0µH	
FB318	1-414-921-11	INDUCTOR CHIP	0µH	
FB319	1-414-921-11	INDUCTOR CHIP	0µH	
FB320	1-414-921-11	INDUCTOR CHIP	0µH	
FB321	1-414-921-11	INDUCTOR CHIP	0µH	
FB322	1-414-921-11	INDUCTOR CHIP	0µH	
FB323	1-414-921-11	INDUCTOR CHIP	0µH	
	<FILTER>			
FL302	1-239-899-21	FILTER, CHIP EMI		
	<IC>			
IC300	8-759-645-78	IC SII151		
IC301	8-759-523-96	IC TC74VHC86FT(EL)		
IC302	8-759-475-43	IC TC74LCX125FT(EL)		
IC304	8-759-645-12	IC AD9884AKS-140		
IC305	8-759-531-92	IC TC7WH04FU(TE12R)		
IC306	8-759-544-01	IC S-80828ANNP-EDR-T2		
IC307	8-759-475-43	IC TC74LCX125FT(EL)		
IC308	8-759-646-15	IC ST49C101ACF8-05-TR		
IC309	8-759-647-53	IC IMISM530AYB-D REV.T		
IC311	8-759-460-72	IC BA033FP-E2		
IC312	8-759-388-31	IC PQ20VZ1U		
IC313	8-759-598-12	IC LP2985IM5X-3.5		
IC314	* 8-759-655-74	IC MBM29LV400TC-70PFTN-SX1696		
IC315	8-759-645-48	IC IDT71V016S15PH-TL		
IC316	8-759-442-20	IC 24LC21AT/SN		
IC317	8-759-594-71	IC TC7SH14FU-TE85R		
IC318	8-759-523-79	IC TC74VHC02FT(EL)		
	<COIL>			
L300	1-410-992-11	INDUCTOR CHIP	0.82µH	
L301	1-409-529-21	INDUCTOR	10µH	
L302	1-410-989-11	INDUCTOR CHIP	0.47µH	
L303	1-410-989-11	INDUCTOR CHIP	0.47µH	
	<TRANSISTOR>			
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG		
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG		

BB

Ref.No.	Part No.	Description			Remark
	<RESISTOR>				
R300	1-216-864-11	SHORT	0		
R301	1-216-864-11	SHORT	0		
R302	1-216-864-11	SHORT	0		
R303	1-216-864-11	SHORT	0		
R304	1-216-864-11	SHORT	0		
R305	1-216-864-11	SHORT	0		
R306	1-216-864-11	SHORT	0		
R307	1-216-864-11	SHORT	0		
R309	1-216-805-11	RES,CHIP	47	5%	1/16W
R310	1-216-801-11	RES,CHIP	22	5%	1/16W
R311	1-216-817-11	RES,CHIP	470	5%	1/16W
R313	1-216-833-91	RES,CHIP	10K	5%	1/16W
R314	1-216-805-11	RES,CHIP	47	5%	1/16W
R320	1-216-864-11	SHORT	0		
R322	1-216-864-11	SHORT	0		
R323	1-216-864-11	SHORT	0		
R325	1-216-864-11	SHORT	0		
R327	1-216-833-91	RES,CHIP	10K	5%	1/16W
R328	1-216-864-11	SHORT	0		
R329	1-216-864-11	SHORT	0		
R330	1-216-864-11	SHORT	0		
R331	1-218-285-11	RES,CHIP	75	5%	1/16W
R332	1-218-285-11	RES,CHIP	75	5%	1/16W
R333	1-218-285-11	RES,CHIP	75	5%	1/16W
R334	1-216-801-11	RES,CHIP	22	5%	1/16W
R335	1-216-801-11	RES,CHIP	22	5%	1/16W
R338	1-216-809-11	RES,CHIP	100	5%	1/16W
R339	1-216-833-91	RES,CHIP	10K	5%	1/16W
R340	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R341	1-216-805-11	RES,CHIP	47	5%	1/16W
R342	1-216-805-11	RES,CHIP	47	5%	1/16W
R343	1-216-801-11	RES,CHIP	22	5%	1/16W
R344	1-216-833-91	RES,CHIP	10K	5%	1/16W
R346	1-216-809-11	RES,CHIP	100	5%	1/16W
R347	1-216-809-11	RES,CHIP	100	5%	1/16W
R348	1-216-809-11	RES,CHIP	100	5%	1/16W
R349	1-216-809-11	RES,CHIP	100	5%	1/16W
R350	1-216-809-11	RES,CHIP	100	5%	1/16W
R353	1-216-833-91	RES,CHIP	10K	5%	1/16W
R354	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R355	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R356	1-216-833-91	RES,CHIP	10K	5%	1/16W
R357	1-216-833-91	RES,CHIP	10K	5%	1/16W
R358	1-216-833-91	RES,CHIP	10K	5%	1/16W
R359	1-216-833-91	RES,CHIP	10K	5%	1/16W
R360	1-216-821-11	RES,CHIP	1K	5%	1/16W
R362	1-216-864-11	SHORT	0		
R371	1-216-805-11	RES,CHIP	47	5%	1/16W
R372	1-216-805-11	RES,CHIP	47	5%	1/16W
R373	1-216-805-11	RES,CHIP	47	5%	1/16W
R387	1-216-864-11	SHORT	0		
R392	1-216-805-11	RES,CHIP	47	5%	1/16W
R393	1-216-805-11	RES,CHIP	47	5%	1/16W
R394	1-216-821-11	RES,CHIP	1K	5%	1/16W
R395	1-216-821-11	RES,CHIP	1K	5%	1/16W
R396	1-216-821-11	RES,CHIP	1K	5%	1/16W
R397	1-216-821-11	RES,CHIP	1K	5%	1/16W
R398	1-216-809-11	RES,CHIP	100	5%	1/16W
R399	1-216-809-11	RES,CHIP	100	5%	1/16W
R411	1-216-837-11	RES,CHIP	22K	5%	1/16W
R412	1-216-833-91	RES,CHIP	10K	5%	1/16W
R413	1-216-805-11	RES,CHIP	47	5%	1/16W
R414	1-216-805-11	RES,CHIP	47	5%	1/16W
R421	1-216-809-11	RES,CHIP	100	5%	1/16W
R423	1-216-833-91	RES,CHIP	10K	5%	1/16W
R424	1-216-821-11	RES,CHIP	1K	5%	1/16W
R425	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R426	1-216-809-11	RES,CHIP	100	5%	1/16W
R427	1-216-809-11	RES,CHIP	100	5%	1/16W
R428	1-216-833-91	RES,CHIP	10K	5%	1/16W
R429	1-216-833-91	RES,CHIP	10K	5%	1/16W
R430	1-216-805-11	RES,CHIP	47	5%	1/16W
R433	1-216-801-11	RES,CHIP	22	5%	1/16W
R434	1-216-801-11	RES,CHIP	22	5%	1/16W
R435	1-216-833-91	RES,CHIP	10K	5%	1/16W
R436	1-216-833-91	RES,CHIP	10K	5%	1/16W
R438	1-216-801-11	RES,CHIP	22	5%	1/16W
R439	1-216-801-11	RES,CHIP	22	5%	1/16W
R441	1-216-851-11	RES,CHIP	330K	5%	1/16W
R442	1-216-845-11	RES,CHIP	100K	5%	1/16W
R443	1-216-805-11	RES,CHIP	47	5%	1/16W
R445	1-216-809-11	RES,CHIP	100	5%	1/16W
R446	1-216-809-11	RES,CHIP	100	5%	1/16W
R450	1-216-833-91	RES,CHIP	10K	5%	1/16W
R451	1-216-833-91	RES,CHIP	10K	5%	1/16W
R452	1-216-809-11	RES,CHIP	100	5%	1/16W
R454	1-216-833-91	RES,CHIP	10K	5%	1/16W
	<NETWORK>				
RB301	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB324	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB325	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB326	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB327	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB328	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB329	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB330	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB331	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB332	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB333	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB334	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB335	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
	<SWITCH>				
S300	1-570-245-11	SWITCH, MICRO (FILTER COVER)			
	<TEST PIN>				
TP303	1-535-757-11	CHIP, CHECKER			
TP321	1-535-757-11	CHIP, CHECKER			
TP322	1-535-757-11	CHIP, CHECKER			
TP323	1-535-757-11	CHIP, CHECKER			
TP324	1-535-757-11	CHIP, CHECKER			
TP325	1-535-757-11	CHIP, CHECKER			
TP326	1-535-757-11	CHIP, CHECKER			
	<CRYSTAL>				
X300	1-781-774-21	VIBRATOR, CRYSTAL (18.0MHz)			
X301	1-781-665-21	VIBRATOR, CRYSTAL (34.0MHz)			

Ref.No.	Part No.	Description			Remark
**					
	* A-1136-040-A	BC COMPL			
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	<CAPACITOR>				
C500	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C505	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C506	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C507	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V
C510	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C511	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C514	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C515	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C516	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C517	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C518	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C519	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C521	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C522	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C523	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C524	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C525	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C526	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C528	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C529	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C533	1-126-205-11	ELECT CHIP	47μF	20%	6.3V
C534	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C535	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C536	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C537	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C545	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
C546	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C548	1-107-826-91	CERAMIC CHIP	0.1μF	10%	16V
	<CONNECTOR>				
CN500	* 1-793-797-21	CONNECTOR, BOARD TO BOARD			
CN501	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P			
CN502	* 1-793-797-21	CONNECTOR, BOARD TO BOARD			
CN503	1-573-806-21	PIN, CONNECTOR (1.5MM) (SMD)6P			
	<DIODE>				
D500	8-719-985-01	DIODE LM385M-1.2			
D501	8-719-073-01	DIODE MA111-(K8).S0			
	<FERRITE BEAD>				
FB500	1-414-921-11	INDUCTOR CHIP		0μH	
FB501	1-414-921-11	INDUCTOR CHIP		0μH	
FB502	1-414-921-11	INDUCTOR CHIP		0μH	
FB504	1-414-921-11	INDUCTOR CHIP		0μH	
FB505	1-414-921-11	INDUCTOR CHIP		0μH	
	<FILTER>				
FL501	1-234-011-11	FILTER, EMI			
FL502	1-234-011-11	FILTER, EMI			
FL503	1-234-011-11	FILTER, EMI			
FL507	1-239-899-21	FILTER, CHIP EMI			
	<IC>				
IC500	8-759-475-35	IC TC74LCX04FT(EL)			
IC501	8-759-649-90	IC W152-2G-E2			
IC502	8-759-592-38	IC CXD9512Q			

Ref.No.	Part No.	Description			Remark
IC503	8-759-492-55	IC M24C64-WMN6T			
IC505	8-759-475-43	IC TC74LCX125FT(EL)			
IC506	8-759-645-13	IC ADV7123KST140			
IC511	8-759-544-01	IC S-80828ANNP-EDR-T2			
	<TRANSISTOR>				
Q500	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q501	8-729-140-63	TRANSISTOR 2SA1611-M5M6			
	<RESISTOR>				
R500	1-216-805-11	RES,CHIP	47	5%	1/16W
R501	1-216-805-11	RES,CHIP	47	5%	1/16W
R503	1-216-805-11	RES,CHIP	47	5%	1/16W
R504	1-216-841-11	RES,CHIP	47K	5%	1/16W
R505	1-216-864-11	SHORT	0		
R506	1-216-841-11	RES,CHIP	47K	5%	1/16W
R507	1-216-864-11	SHORT	0		
R508	1-216-833-91	RES,CHIP	10K	5%	1/16W
R509	1-216-805-11	RES,CHIP	47	5%	1/16W
R510	1-216-805-11	RES,CHIP	47	5%	1/16W
R511	1-216-805-11	RES,CHIP	47	5%	1/16W
R512	1-216-805-11	RES,CHIP	47	5%	1/16W
R513	1-216-809-11	RES,CHIP	100	5%	1/16W
R514	1-216-809-11	RES,CHIP	100	5%	1/16W
R517	1-216-841-11	RES,CHIP	47K	5%	1/16W
R518	1-216-821-11	RES,CHIP	1K	5%	1/16W
R519	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R520	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R521	1-216-864-11	SHORT	0		
R526	1-216-831-11	RES,CHIP	6.8K	5%	1/16W
R527	1-216-831-11	RES,CHIP	6.8K	5%	1/16W
R528	1-216-821-11	RES,CHIP	1K	5%	1/16W
R529	1-216-864-11	SHORT	0		
R530	1-216-805-11	RES,CHIP	47	5%	1/16W
R531	1-216-805-11	RES,CHIP	47	5%	1/16W
R534	1-216-805-11	RES,CHIP	47	5%	1/16W
R537	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R540	1-216-817-11	RES,CHIP	470	5%	1/16W
R541	1-218-285-11	RES,CHIP	75	5%	1/16W
R542	1-218-285-11	RES,CHIP	75	5%	1/16W
R543	1-218-285-11	RES,CHIP	75	5%	1/16W
R548	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R560	1-216-864-11	SHORT	0		
R561	1-216-864-11	SHORT	0		
R562	1-216-833-91	RES,CHIP	10K	5%	1/16W
R563	1-216-831-11	RES,CHIP	6.8K	5%	1/16W
R565	1-216-833-91	RES,CHIP	10K	5%	1/16W
R568	1-216-831-11	RES,CHIP	6.8K	5%	1/16W
R569	1-216-831-11	RES,CHIP	6.8K	5%	1/16W
	<NETWORK>				
RB501	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB502	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB503	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB504	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB505	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB506	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB507	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
	<SWITCH>				
S500	1-571-674-11 ,	SWITCH, SLIDE			

Ref.No.	Part No.	Description			Remark
	<TEST PIN>				
TP501	1-535-757-11	CHIP, CHECKER			
TP502	1-535-757-11	CHIP, CHECKER			
TP503	1-535-757-11	CHIP, CHECKER			
TP504	1-535-757-11	CHIP, CHECKER			
TP505	1-535-757-11	CHIP, CHECKER			
TP506	1-535-757-11	CHIP, CHECKER			
**					
	* A-1241-395-A	F MOUNT **********************			
	1-533-223-11	HOLDER, FUSE			
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			
	<CAPACITOR>				
C2002	⚠1-107-533-11	FILM	1μF	20%	275V
C2003	⚠1-115-166-11	FILM	0.22μF	20%	275V
	<CONNECTOR>				
CN2000	* 1-900-249-66	TERMINL ASSY, FASTEN			
CN2002	* 1-900-249-67	CONNECTOR ASSY, RELAY (F) 3P			
	<FUSE>				
F2000	⚠1-576-233-11	FUSE (H.B.C.) (6.3A/250V)			
	<COIL>				
L2000	⚠1-415-967-11	INDUCTOR	5mmH		
	<RESISTOR>				
R2000	⚠1-202-847-00	SOLID	560K	20%	1/2W
	<VARISTOR>				
VD2000	⚠1-801-073-41	VARISTOR ERZV14D471			
**					
	* A-1275-178-A	QA COMPL **********************			
	<CAPACITOR>				
C801	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C802	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C803	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C804	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C805	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C806	1-113-701-21	ELECT CHIP	22μF	20%	16V
C807	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C808	1-126-204-11	ELECT CHIP	47μF	20%	16V
C809	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C810	1-126-205-11	ELECT CHIP	47μF	20%	6.3V
C811	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C812	1-126-205-11	ELECT CHIP	47μF	20%	6.3V
C813	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C816	1-125-817-11	CERAMIC CHIP	10μF	10%	6.3V
C817	1-125-817-11	CERAMIC CHIP	10μF	10%	6.3V

Ref.No.	Part No.	Description			Remark
C820	1-109-982-11	CERAMIC CHIP	1μF	10%	10V
C821	1-164-344-11	CERAMIC CHIP	0.068μF	10%	25V
C822	1-128-004-11	ELECT CHIP	10μF	20%	16V
C824	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C825	1-126-205-11	ELECT CHIP	47μF	20%	6.3V
C826	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C827	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C828	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C829	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C830	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C831	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C832	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C833	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C834	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C835	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C836	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C837	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C838	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C839	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C840	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C841	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C842	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C843	1-126-204-11	ELECT CHIP	47μF	20%	16V
C844	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C845	1-126-204-11	ELECT CHIP	47μF	20%	16V
C846	1-126-204-11	ELECT CHIP	47μF	20%	16V
C847	1-126-204-11	ELECT CHIP	47μF	20%	16V
C848	1-126-205-11	ELECT CHIP	47μF	20%	6.3V
C849	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C850	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C851	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C852	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C853	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C854	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C855	1-128-004-11	ELECT CHIP	10μF	20%	16V
C856	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C857	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C858	1-128-004-11	ELECT CHIP	10μF	20%	16V
C859	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C860	1-128-004-11	ELECT CHIP	10μF	20%	16V
C861	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C862	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C863	1-128-004-11	ELECT CHIP	10μF	20%	16V
C864	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C865	1-128-004-11	ELECT CHIP	10μF	20%	16V
C866	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C867	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C868	1-128-004-11	ELECT CHIP	10μF	20%	16V
C869	1-128-004-11	ELECT CHIP	10μF	20%	16V
C870	1-128-004-11	ELECT CHIP	10μF	20%	16V
C871	1-128-399-11	ELECT CHIP	330μF	20%	16V
C872	1-128-399-11	ELECT CHIP	330μF	20%	16V
C873	1-128-399-11	ELECT CHIP	330μF	20%	16V
C874	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C875	1-128-004-11	ELECT CHIP	10μF	20%	16V
C876	1-128-004-11	ELECT CHIP	10μF	20%	16V
C877	1-128-004-11	ELECT CHIP	10μF	20%	16V
C878	1-128-013-11	ELECT CHIP	1μF	20%	50V
C879	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C880	1-126-395-11	ELECT CHIP	22μF	20%	16V
C881	1-126-395-11	ELECT CHIP	22μF	20%	16V
C882	1-126-395-11	ELECT CHIP	22μF	20%	16V
C883	1-128-004-11	ELECT CHIP	10μF	20%	16V
C884	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C885	1-128-013-11	ELECT CHIP	1μF	20%	50V
C886	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C887	1-126-204-11	ELECT CHIP	47μF	20%	16V

Ref.No.	Part No.	Description			Remark
C888	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C891	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C892	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C893	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C894	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C895	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C896	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C897	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C898	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C899	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C900	1-124-778-00	ELECT CHIP	22μF	20%	6.3V
C901	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C902	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C903	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C904	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C905	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C906	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C907	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C908	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C909	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C911	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V
C912	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C914	1-128-004-11	ELECT CHIP	10μF	20%	16V
C915	1-128-004-11	ELECT CHIP	10μF	20%	16V
C916	1-128-004-11	ELECT CHIP	10μF	20%	16V
C917	1-128-004-11	ELECT CHIP	10μF	20%	16V
C920	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V
C921	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C922	1-128-004-11	ELECT CHIP	10μF	20%	16V
C923	1-128-004-11	ELECT CHIP	10μF	20%	16V
C924	1-128-004-11	ELECT CHIP	10μF	20%	16V
C925	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C926	1-117-681-11	ELECT CHIP	100μF	20%	16V
C927	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C928	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C929	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C930	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C931	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C936	1-126-395-11	ELECT CHIP	22μF	20%	16V
C937	1-163-023-00	CERAMIC CHIP	0.015μF	10%	50V
C938	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C939	1-128-004-11	ELECT CHIP	10μF	20%	16V
C940	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C941	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C942	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C943	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C944	1-126-395-11	ELECT CHIP	22μF	20%	16V
C945	1-126-395-11	ELECT CHIP	22μF	20%	16V
C946	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C947	1-126-395-11	ELECT CHIP	22μF	20%	16V
C948	1-107-682-11	CERAMIC CHIP	1μF	10%	16V
C949	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C950	1-128-004-11	ELECT CHIP	10μF	20%	16V
C951	1-126-204-11	ELECT CHIP	47μF	20%	16V
C952	1-128-004-11	ELECT CHIP	10μF	20%	16V
C953	1-128-065-11	ELECT CHIP	68μF	20%	10V
C954	1-128-004-11	ELECT CHIP	10μF	20%	16V
C955	1-128-065-11	ELECT CHIP	68μF	20%	10V
C958	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C959	1-110-666-11	ELECT CHIP	22μF	20%	6.3V
C960	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C961	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C962	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C963	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C964	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C965	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C966	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C967	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C968	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C969	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C970	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C971	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C972	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C973	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C974	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C975	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C976	1-164-506-11	CERAMIC CHIP	4.7μF		16V
C977	1-164-506-11	CERAMIC CHIP	4.7μF		16V
C978	1-113-701-21	ELECT CHIP	22μF	20%	16V
C979	1-164-506-11	CERAMIC CHIP	4.7μF		16V
C980	1-128-453-21	ELECT CHIP	47μF	20%	6.3V
C981	1-113-701-21	ELECT CHIP	22μF	20%	16V
C982	1-128-004-11	ELECT CHIP	10μF	20%	16V
C983	1-128-004-11	ELECT CHIP	10μF	20%	16V
C984	1-128-004-11	ELECT CHIP	10μF	20%	16V
	<CONNECTOR>				
CN801	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P			
CN802	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P			
CN803	* 1-793-798-21	CONNECTOR, BOARD TO BOARD			
CN804	* 1-793-798-21	CONNECTOR, BOARD TO BOARD			
CN805	* 1-793-798-21	CONNECTOR, BOARD TO BOARD			
CN806	* 1-793-798-21	CONNECTOR, BOARD TO BOARD			
CN807	* 1-580-057-11	PIN, CONNECTOR (SMD) 4P			
CN808	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P			
CN809	* 1-580-056-21	PIN, CONNECTOR (SMD) 3P			
CN810	* 1-760-388-11	CONNECTOR PIN (SMD) 9 PIN			
	<DIODE>				
D801	8-719-800-76	DIODE 1SS226			
D802	8-719-800-76	DIODE 1SS226			
D803	8-719-800-76	DIODE 1SS226			
D804	8-719-800-76	DIODE 1SS226			
D805	8-719-800-76	DIODE 1SS226			
D807	8-719-800-76	DIODE 1SS226			
D808	8-719-800-76	DIODE 1SS226			
D809	8-719-800-76	DIODE 1SS226			
D810	8-719-800-76	DIODE 1SS226			
D811	8-719-800-76	DIODE 1SS226			
D812	8-719-800-76	DIODE 1SS226			
D813	8-719-914-43	DIODE DAN202K			
D814	8-719-800-76	DIODE 1SS226			
D815	8-719-914-43	DIODE DAN202K			
D816	8-719-800-76	DIODE 1SS226			
D817	8-719-800-76	DIODE 1SS226			
D818	8-719-800-76	DIODE 1SS226			
D819	8-719-800-76	DIODE 1SS226			
D820	8-719-800-76	DIODE 1SS226			
D821	8-719-800-76	DIODE 1SS226			
D822	8-719-800-76	DIODE 1SS226			
D823	8-719-800-76	DIODE 1SS226			
D824	8-719-158-37	DIODE RD9.1SB2			
D825	8-719-158-37	DIODE RD9.1SB2			
D826	8-719-988-61	DIODE 1SS355TE-17			
D827	8-719-988-61	DIODE 1SS355TE-17			
D831	8-719-422-12	DIODE MA8039			
D832	8-719-422-12	DIODE MA8039			
D833	8-719-158-15	DIODE RD5.6SB			
D834	8-719-422-12	DIODE MA8039			
D835	8-719-422-12	DIODE MA8039			
D836	8-719-158-37	DIODE RD9.1SB2			

Ref.No.	Part No.	Description	Remark
D837	8-719-158-37	DIODE RD9.1SB2	
D838	8-719-158-37	DIODE RD9.1SB2	
D839	8-719-158-37	DIODE RD9.1SB2	
D840	8-719-158-37	DIODE RD9.1SB2	
D841	8-719-158-37	DIODE RD9.1SB2	
D842	8-719-036-76	DIODE RD3.3SB2-T1	
D843	8-719-914-43	DIODE DAN202K	
D844	8-719-914-43	DIODE DAN202K	
D845	8-719-036-76	DIODE RD3.3SB2-T1	
D846	8-719-158-37	DIODE RD9.1SB2	
D847	8-719-158-37	DIODE RD9.1SB2	
D848	8-719-158-37	DIODE RD9.1SB2	
D871	8-719-058-24	DIODE RB501V-40TE-17	
D872	8-719-058-24	DIODE RB501V-40TE-17	

<FERRITE BEAD>

Ref.No.	Part No.	Description	Remark
FB801	1-414-234-22	INDUCTOR CHIP	0µH
FB802	1-414-234-22	INDUCTOR CHIP	0µH
FB803	1-414-234-22	INDUCTOR CHIP	0µH
FB804	1-414-234-22	INDUCTOR CHIP	0µH

<FILTER>

Ref.No.	Part No.	Description	Remark
FL802	1-239-466-21	FILTER, EMI	
FL803	1-239-466-21	FILTER, EMI	
FL804	1-469-577-21	INDUCTOR	0µH

<IC>

Ref.No.	Part No.	Description	Remark
IC801	8-759-491-93	IC EL4332CS-TE2	
IC802	8-759-646-02	IC M52347FP-TE	
IC803	8-759-174-16	IC TC74VHC244F	
IC804	8-759-186-43	IC TC74VHC123AF	
IC805	8-759-457-53	IC GS1881-CTA	
IC806	8-752-072-94	IC CXA1875AM-T4	
IC807	8-752-072-94	IC CXA1875AM-T4	
IC808	8-759-542-11	IC MAX4223ESA-TG068	
IC809	8-759-542-11	IC MAX4223ESA-TG068	
IC810	8-759-542-11	IC MAX4223ESA-TG068	
IC811	8-759-523-01	IC TC74HC4052AFT(EL)	
IC812	8-759-700-78	IC NJM082M	
IC813	8-759-092-82	IC SN75157PS-ELL2000	
IC814	8-759-090-19	IC SN75453BPS	
IC816	8-759-460-79	IC BA09FP-E2	
IC817	8-759-157-17	IC PQ05SZ1U	
IC818	8-759-539-89	IC LM2990SX-5.0	
IC819	8-752-074-42	IC CXA1946AR	
IC821	8-759-983-69	IC LM358PS	
IC822	8-759-655-59	IC UPD16875G-E2	
IC823	8-759-422-82	IC HA4314BCB-E2	
IC824	8-759-422-82	IC HA4314BCB-E2	
IC825	8-759-422-82	IC HA4314BCB-E2	

<COIL>

Ref.No.	Part No.	Description	Remark
L801	1-414-235-22	INDUCTOR CHIP	0µH
L802	1-412-058-11	INDUCTOR CHIP	10µH
L803	1-412-058-11	INDUCTOR CHIP	10µH
L804	1-412-058-11	INDUCTOR CHIP	10µH
L805	1-412-058-11	INDUCTOR CHIP	10µH
L808	1-412-363-21	FERRITE	0µH
L809	1-412-363-21	FERRITE	0µH
L810	1-412-363-21	FERRITE	0µH
L811	1-412-363-21	FERRITE	0µH
L812	1-412-363-21	FERRITE	0µH
L813	1-412-363-21	FERRITE	0µH
L814	1-412-363-21	FERRITE	0µH
L815	1-412-363-21	FERRITE	0µH
L816	1-414-235-22	INDUCTOR CHIP	0µH
L817	1-412-060-11	INDUCTOR CHIP	22µH

<TRANSISTOR>

Ref.No.	Part No.	Description	Remark
Q802	8-729-900-53	TRANSISTOR DTC114EK	
Q805	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q808	8-729-900-53	TRANSISTOR DTC114EK	
Q809	8-729-216-22	TRANSISTOR 2SA1162-G	
Q810	8-729-900-53	TRANSISTOR DTC114EK	
Q811	8-729-107-31	TRANSISTOR 2SC3545-T1T44	
Q812	8-729-107-31	TRANSISTOR 2SC3545-T1T44	
Q813	8-729-107-31	TRANSISTOR 2SC3545-T1T44	
Q821	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q822	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q823	8-729-216-22	TRANSISTOR 2SA1162-G	
Q824	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q825	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q826	8-729-216-22	TRANSISTOR 2SA1162-G	
Q831	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q832	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q833	8-729-216-22	TRANSISTOR 2SA1162-G	
Q834	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q835	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q836	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q837	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q838	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

Ref.No.	Part No.	Description	Remark
R801	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R802	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R803	1-216-049-91	RES,CHIP 1K	5% 1/10W
R804	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R805	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R806	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R807	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R808	1-216-013-00	RES,CHIP 33	5% 1/10W
R809	1-216-043-91	RES,CHIP 560	5% 1/10W
R810	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R811	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R812	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R813	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R814	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R815	1-216-631-11	METAL CHIP 150	0.50% 1/10W
R816	1-216-013-00	RES,CHIP 33	5% 1/10W
R817	1-216-043-91	RES,CHIP 560	5% 1/10W
R818	1-216-049-91	RES,CHIP 1K	5% 1/10W
R819	1-216-025-91	RES,CHIP 100	5% 1/10W
R821	1-216-025-91	RES,CHIP 100	5% 1/10W
R822	1-216-095-00	RES,CHIP 82K	5% 1/10W
R823	1-216-089-91	RES,CHIP 47K	5% 1/10W
R824	1-216-025-91	RES,CHIP 100	5% 1/10W
R825	1-216-025-91	RES,CHIP 100	5% 1/10W
R826	1-216-089-91	RES,CHIP 47K	5% 1/10W
R827	1-216-079-00	RES,CHIP 18K	5% 1/10W
R828	1-216-071-00	RES,CHIP 8.2K	5% 1/10W
R829	1-216-625-11	METAL CHIP 82	0.50% 1/10W
R830	1-216-059-00	RES,CHIP 2.7K	5% 1/10W
R831	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R832	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R833	1-216-025-91	RES,CHIP 100	5% 1/10W
R834	1-216-095-00	RES,CHIP 82K	5% 1/10W
R835	1-216-089-91	RES,CHIP 47K	5% 1/10W
R836	1-216-089-91	RES,CHIP 47K	5% 1/10W

Ref.No.	Part No.	Description			Remark
R837	1-216-095-00	RES,CHIP	82K	5%	1/10W
R838	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R839	1-216-095-00	RES,CHIP	82K	5%	1/10W
R840	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R841	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R842	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R843	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R845	1-216-091-00	RES,CHIP	56K	5%	1/10W
R846	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R847	1-216-073-00	RES,CHIP	10K	5%	1/10W
R848	1-216-073-00	RES,CHIP	10K	5%	1/10W
R849	1-216-073-00	RES,CHIP	10K	5%	1/10W
R850	1-216-690-11	METAL CHIP	43K	0.50%	1/10W
R851	1-216-073-00	RES,CHIP	10K	5%	1/10W
R853	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R854	1-216-629-11	METAL CHIP	120	0.50%	1/10W
R855	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R856	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R857	1-216-025-91	RES,CHIP	100	5%	1/10W
R858	1-216-025-91	RES,CHIP	100	5%	1/10W
R859	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R860	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R861	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R862	1-216-025-91	RES,CHIP	100	5%	1/10W
R863	1-216-049-91	RES,CHIP	1K	5%	1/10W
R864	1-216-049-91	RES,CHIP	1K	5%	1/10W
R865	1-216-025-91	RES,CHIP	100	5%	1/10W
R866	1-218-767-11	METAL CHIP	430K	0.50%	1/10W
R867	1-216-025-91	RES,CHIP	100	5%	1/10W
R868	1-216-025-91	RES,CHIP	100	5%	1/10W
R869	1-216-025-91	RES,CHIP	100	5%	1/10W
R870	1-216-025-91	RES,CHIP	100	5%	1/10W
R871	1-216-025-91	RES,CHIP	100	5%	1/10W
R872	1-216-025-91	RES,CHIP	100	5%	1/10W
R873	1-216-025-91	RES,CHIP	100	5%	1/10W
R874	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R875	1-216-025-91	RES,CHIP	100	5%	1/10W
R876	1-216-025-91	RES,CHIP	100	5%	1/10W
R877	1-216-025-91	RES,CHIP	100	5%	1/10W
R878	1-216-073-00	RES,CHIP	10K	5%	1/10W
R879	1-216-073-00	RES,CHIP	10K	5%	1/10W
R880	1-216-073-00	RES,CHIP	10K	5%	1/10W
R881	1-216-073-00	RES,CHIP	10K	5%	1/10W
R882	1-216-073-00	RES,CHIP	10K	5%	1/10W
R883	1-216-025-91	RES,CHIP	100	5%	1/10W
R884	1-216-025-91	RES,CHIP	100	5%	1/10W
R885	1-216-025-91	RES,CHIP	100	5%	1/10W
R886	1-216-025-91	RES,CHIP	100	5%	1/10W
R887	1-216-025-91	RES,CHIP	100	5%	1/10W
R888	1-216-025-91	RES,CHIP	100	5%	1/10W
R889	1-216-073-00	RES,CHIP	10K	5%	1/10W
R890	1-216-073-00	RES,CHIP	10K	5%	1/10W
R891	1-216-073-00	RES,CHIP	10K	5%	1/10W
R894	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R895	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R897	1-216-295-91	SHORT	0		
R899	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R900	1-216-017-91	RES,CHIP	47	5%	1/10W
R901	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R902	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R903	1-216-025-91	RES,CHIP	100	5%	1/10W
R904	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R905	1-216-017-91	RES,CHIP	47	5%	1/10W
R906	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R907	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R908	1-216-025-91	RES,CHIP	100	5%	1/10W
R909	1-216-063-91	RES,CHIP	3.9K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R910	1-216-017-91	RES,CHIP	47	5%	1/10W
R911	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R912	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R913	1-216-025-91	RES,CHIP	100	5%	1/10W
R914	1-216-049-91	RES,CHIP	1K	5%	1/10W
R915	1-216-013-00	RES,CHIP	33	5%	1/10W
R916	1-216-043-91	RES,CHIP	560	5%	1/10W
R917	1-216-029-00	RES,CHIP	150	5%	1/10W
R918	1-216-029-00	RES,CHIP	150	5%	1/10W
R919	1-216-029-00	RES,CHIP	150	5%	1/10W
R920	1-216-029-00	RES,CHIP	150	5%	1/10W
R921	1-216-029-00	RES,CHIP	150	5%	1/10W
R922	1-216-029-00	RES,CHIP	150	5%	1/10W
R923	1-216-025-91	RES,CHIP	100	5%	1/10W
R924	1-216-025-91	RES,CHIP	100	5%	1/10W
R925	1-216-095-00	RES,CHIP	82K	5%	1/10W
R926	1-216-095-00	RES,CHIP	82K	5%	1/10W
R927	1-216-025-91	RES,CHIP	100	5%	1/10W
R928	1-216-095-00	RES,CHIP	82K	5%	1/10W
R929	1-216-095-00	RES,CHIP	82K	5%	1/10W
R930	1-216-025-91	RES,CHIP	100	5%	1/10W
R931	1-216-025-91	RES,CHIP	100	5%	1/10W
R932	1-216-025-91	RES,CHIP	100	5%	1/10W
R941	1-216-025-91	RES,CHIP	100	5%	1/10W
R942	1-216-089-91	RES,CHIP	47K	5%	1/10W
R943	1-216-089-91	RES,CHIP	47K	5%	1/10W
R944	1-216-001-00	RES,CHIP	10	5%	1/10W
R945	1-216-295-91	SHORT	0		
R946	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R947	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R948	1-216-001-00	RES,CHIP	10	5%	1/10W
R949	1-216-295-91	SHORT	0		
R950	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R951	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R952	1-216-001-00	RES,CHIP	10	5%	1/10W
R953	1-216-295-91	SHORT	0		
R954	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R955	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R956	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R957	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R958	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R959	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R960	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R961	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R962	1-216-049-91	RES,CHIP	1K	5%	1/10W
R963	1-216-089-91	RES,CHIP	47K	5%	1/10W
R964	1-216-089-91	RES,CHIP	47K	5%	1/10W
R965	1-216-089-91	RES,CHIP	47K	5%	1/10W
R966	1-216-095-00	RES,CHIP	82K	5%	1/10W
R967	1-216-073-00	RES,CHIP	10K	5%	1/10W
R968	1-216-073-00	RES,CHIP	10K	5%	1/10W
R969	1-216-025-91	RES,CHIP	100	5%	1/10W
R970	1-216-041-00	RES,CHIP	470	5%	1/10W
R971	1-216-097-91	RES,CHIP	100K	5%	1/10W
R972	1-216-095-00	RES,CHIP	82K	5%	1/10W
R973	1-216-089-91	RES,CHIP	47K	5%	1/10W
R974	1-216-089-91	RES,CHIP	47K	5%	1/10W
R975	1-216-017-91	RES,CHIP	47	5%	1/10W
R976	1-216-081-00	RES,CHIP	22K	5%	1/10W
R977	1-216-081-00	RES,CHIP	22K	5%	1/10W
R978	1-216-025-91	RES,CHIP	100	5%	1/10W
R979	1-216-049-91	RES,CHIP	1K	5%	1/10W
R980	1-216-095-00	RES,CHIP	82K	5%	1/10W
R981	1-216-101-00	RES,CHIP	150K	5%	1/10W
R982	1-216-099-00	RES,CHIP	120K	5%	1/10W
R983	1-216-095-00	RES,CHIP	82K	5%	1/10W

QA **QC**

Ref.No.	Part No.	Description			Remark
R984	1-216-013-00	RES,CHIP	33	5%	1/10W
R985	1-216-013-00	RES,CHIP	33	5%	1/10W
R987	1-216-001-00	RES,CHIP	10	5%	1/10W
R988	1-216-186-00	RES,CHIP	330	5%	1/8W
R989	1-216-186-00	RES,CHIP	330	5%	1/8W
R990	1-216-017-91	RES,CHIP	47	5%	1/10W
R991	1-216-186-00	RES,CHIP	330	5%	1/8W
R992	1-216-186-00	RES,CHIP	330	5%	1/8W
R993	1-216-017-91	RES,CHIP	47	5%	1/10W
R994	1-216-017-91	RES,CHIP	47	5%	1/10W
R995	1-216-017-91	RES,CHIP	47	5%	1/10W
R997	1-216-025-91	RES,CHIP	100	5%	1/10W
R998	1-216-025-91	RES,CHIP	100	5%	1/10W
R999	1-216-025-91	RES,CHIP	100	5%	1/10W
R1000	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1001	1-216-025-91	RES,CHIP	100	5%	1/10W
R1002	1-216-025-91	RES,CHIP	100	5%	1/10W
R1003	1-216-025-91	RES,CHIP	100	5%	1/10W
R1004	1-216-025-91	RES,CHIP	100	5%	1/10W
R1005	1-216-025-91	RES,CHIP	100	5%	1/10W
R1006	1-216-095-00	RES,CHIP	82K	5%	1/10W
R1007	1-216-025-91	RES,CHIP	100	5%	1/10W
R1008	1-216-095-00	RES,CHIP	82K	5%	1/10W
R1009	1-216-095-00	RES,CHIP	82K	5%	1/10W
R1010	1-216-095-00	RES,CHIP	82K	5%	1/10W
R1011	1-216-017-91	RES,CHIP	47	5%	1/10W
R1013	1-216-095-00	RES,CHIP	82K	5%	1/10W
R1014	1-216-025-91	RES,CHIP	100	5%	1/10W
R1015	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1016	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1017	1-216-025-91	RES,CHIP	100	5%	1/10W
R1018	1-216-025-91	RES,CHIP	100	5%	1/10W
R1019	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1021	1-216-295-91	SHORT	0		
R1022	1-216-295-91	SHORT	0		
R1031	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1032	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1033	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1034	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1035	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1036	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1037	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1038	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1039	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1040	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1042	1-216-295-91	SHORT	0		
R1043	1-216-295-91	SHORT	0		
R1044	1-216-295-91	SHORT	0		
R1046	1-216-295-91	SHORT	0		
R1047	1-216-295-91	SHORT	0		
R1048	1-216-295-91	SHORT	0		
R1049	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1050	1-216-025-91	RES,CHIP	100	5%	1/10W
R1051	1-216-025-91	RES,CHIP	100	5%	1/10W
R1052	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1053	1-216-025-91	RES,CHIP	100	5%	1/10W
R1061	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1064	1-216-025-91	RES,CHIP	100	5%	1/10W
R1065	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1068	1-216-025-91	RES,CHIP	100	5%	1/10W
R1069	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1070	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1071	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1072	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1073	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1074	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1075	1-216-049-91	RES,CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R1076	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1077	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1078	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1079	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1080	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1081	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1082	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1083	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1084	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1085	1-216-025-91	RES,CHIP	100	5%	1/10W
R1086	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1087	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W
R1088	1-216-025-91	RES,CHIP	100	5%	1/10W
R1089	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W
R1090	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1091	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1092	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1093	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1094	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1095	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1096	1-216-033-00	RES,CHIP	220	5%	1/10W
R1097	1-216-033-00	RES,CHIP	220	5%	1/10W
R1100	1-216-057-00	RES,CHIP	2.2K	5%	1/10W

<THERMISTOR>

Ref.No.	Part No.	Description
TH801	1-809-020-11	THERMISTOR

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* A-1275-179-A QC COMPL
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<CAPACITOR>

Ref.No.	Part No.	Description			Remark
C1801	1-126-204-11	ELECT CHIP	47μF	20%	16V
C1802	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1803	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1804	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1805	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1806	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1807	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1808	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1810	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C1811	1-163-231-11	CERAMIC CHIP	15PF	5%	50V

<CONNECTOR>

Ref.No.	Part No.	Description
CN1801	1-778-830-21	CONNECTOR (BUS) (INPUT B MOUS)
CN1802	1-784-828-11	CONNECTOR, D SUB (RGB)
CN1803	1-784-828-11	CONNECTOR, D SUB (MONITOR OUT)
CN1804	* 1-793-797-21	CONNECTOR, BOARD TO BOARD
CN1805	* 1-793-797-21	CONNECTOR, BOARD TO BOARD

<DIODE>

Ref.No.	Part No.	Description
D1801	8-719-158-15	DIODE RD5.6SB
D1802	8-719-058-24	DIODE RB501V-40TE-17
D1803	8-719-158-15	DIODE RD5.6SB
D1804	8-719-158-15	DIODE RD5.6SB
D1805	8-719-158-15	DIODE RD5.6SB
D1806	8-719-158-15	DIODE RD5.6SB
D1807	8-719-158-15	DIODE RD5.6SB
D1808	8-719-158-15	DIODE RD5.6SB
D1809	8-719-988-61	DIODE 1SS355TE-17
D1811	8-719-158-15	DIODE RD5.6SB

Ref.No.	Part No.	Description			Remark
D1812	8-719-988-61	DIODE 1SS355TE-17			
D1815	8-719-988-61	DIODE 1SS355TE-17			
D1816	8-719-158-37	DIODE RD9.1SB2			
D1817	8-719-158-15	DIODE RD5.6SB			
D1818	8-719-058-24	DIODE RB501V-40TE-17			
D1819	8-719-158-15	DIODE RD5.6SB			
D1820	8-719-158-15	DIODE RD5.6SB			
D1821	8-719-158-15	DIODE RD5.6SB			
D1822	8-719-158-15	DIODE RD5.6SB			
D1823	8-719-158-15	DIODE RD5.6SB			
D1824	8-719-158-15	DIODE RD5.6SB			
D1825	8-719-158-15	DIODE RD5.6SB			
D1826	8-719-158-15	DIODE RD5.6SB			
	<IC>				
IC1801	8-759-654-25	IC RCV4-A1S-OTP			
IC1802	8-759-442-20	IC 24LC21AT/SN			
IC1803	8-759-925-72	IC SN74HC02ANS			
IC1804	8-759-542-91	IC S-80840ANUP-ED4-T2			
	<JACK>				
J1801	1-566-822-21	JACK (AUDIO IN)			
J1802	1-566-822-21	JACK (AUDIO OUT)			
	<TRANSISTOR>				
Q1801	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q1802	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1803	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1804	8-729-216-22	TRANSISTOR 2SA1162-G			
	<RESISTOR>				
R1801	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1802	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1803	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1804	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1805	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1806	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1807	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1808	1-216-025-91	RES,CHIP	100	5%	1/10W
R1809	1-216-025-91	RES,CHIP	100	5%	1/10W
R1810	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1811	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1812	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1813	1-216-017-91	RES,CHIP	47	5%	1/10W
R1814	1-216-017-91	RES,CHIP	47	5%	1/10W
R1815	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1816	1-216-025-91	RES,CHIP	100	5%	1/10W
R1817	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1818	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1819	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1820	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1821	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1822	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1823	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1824	1-216-017-91	RES,CHIP	47	5%	1/10W
R1825	1-216-017-91	RES,CHIP	47	5%	1/10W
R1826	1-216-295-91	SHORT	0		
R1827	1-216-295-91	SHORT	0		
R1828	1-216-033-00	RES,CHIP	220	5%	1/10W
R1829	1-216-295-91	SHORT	0		
R1830	1-216-295-91	SHORT	0		
R1831	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1832	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1833	1-216-025-91	RES,CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R1834	1-216-033-00	RES,CHIP	220	5%	1/10W
R1835	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1836	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1837	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1838	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1839	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1840	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1841	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1842	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1843	1-216-073-00	RES,CHIP	10K	5%	1/10W
	<NETWORK>				
RB1801	1-233-576-11	RES, CHIP NETWORK 100			
	<CRYSTAL>				
X1801	1-781-163-11	VIBRATOR, OSCILLATOR (24.0MHz)			
X1802	1-781-170-21	VIBRATOR, CERAMIC (6.0MHz)			

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	* A-1275-180-A	QB COMPL **********************			
	<CAPACITOR>				
C1201	1-126-204-11	ELECT CHIP	47μF	20%	16V
C1202	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1203	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1204	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1205	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1206	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1207	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1208	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1209	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1210	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C1211	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
	<CONNECTOR>				
CN1201	1-778-830-21	CONNECTOR (BUS)			
CN1202	1-784-828-11	CONNECTOR, D SUB (RGB)			
CN1203	* 1-793-797-21	CONNECTOR, BOARD TO BOARD			
CN1204	* 1-793-797-21	CONNECTOR, BOARD TO BOARD			
	<DIODE>				
D1201	8-719-158-15	DIODE RD5.6SB			
D1202	8-719-058-24	DIODE RB501V-40TE-17			
D1203	8-719-158-15	DIODE RD5.6SB			
D1204	8-719-158-15	DIODE RD5.6SB			
D1205	8-719-158-15	DIODE RD5.6SB			
D1206	8-719-158-15	DIODE RD5.6SB			
D1207	8-719-158-15	DIODE RD5.6SB			
D1208	8-719-158-15	DIODE RD5.6SB			
D1209	8-719-988-61	DIODE 1SS355TE-17			
D1210	8-719-058-24	DIODE RB501V-40TE-17			
D1211	8-719-158-15	DIODE RD5.6SB			
D1212	8-719-988-61	DIODE 1SS355TE-17			
D1214	8-719-988-61	DIODE 1SS355TE-17			
D1215	8-719-988-61	DIODE 1SS355TE-17			
D1216	8-719-158-37	DIODE RD9.1SB2			
D1217	8-719-158-15	DIODE RD5.6SB			
D1218	8-719-058-24	DIODE RB501V-40TE-17			
D1219	8-719-158-15	DIODE RD5.6SB			

QB QD

Ref.No.	Part No.	Description			Remark
D1220	8-719-158-15	DIODE RD5.6SB			
D1221	8-719-158-15	DIODE RD5.6SB			
D1222	8-719-158-15	DIODE RD5.6SB			
D1223	8-719-158-15	DIODE RD5.6SB			
D1224	8-719-158-15	DIODE RD5.6SB			
D1225	8-719-158-15	DIODE RD5.6SB			
D1226	8-719-158-15	DIODE RD5.6SB			
D1227	8-719-158-15	DIODE RD5.6SB			
	<IC>				
IC1201	8-759-654-25	IC RCV4-A1S-OTP			
IC1202	8-759-442-20	IC 24LC21AT/SN			
IC1203	8-759-925-72	IC SN74HC02ANS			
IC1204	8-759-542-91	IC S-80840ANUP-ED4-T2			
	<JACK>				
J1201	1-793-994-21	CONNECTOR, USB			
J1202	1-779-677-11	CONNECTOR, USB (B)			
J1203	1-566-822-21	JACK (AUDIO)			
	<TRANSISTOR>				
Q1201	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q1202	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1203	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1204	8-729-216-22	TRANSISTOR 2SA1162-G			
	<RESISTOR>				
R1201	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1202	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1203	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1204	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1205	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1206	1-216-025-91	RES,CHIP	100	5%	1/10W
R1207	1-216-025-91	RES,CHIP	100	5%	1/10W
R1208	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1209	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R1210	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1211	1-216-017-91	RES,CHIP	47	5%	1/10W
R1212	1-216-017-91	RES,CHIP	47	5%	1/10W
R1213	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R1214	1-216-025-91	RES,CHIP	100	5%	1/10W
R1215	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1216	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1217	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1218	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1219	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1220	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1221	1-216-017-91	RES,CHIP	47	5%	1/10W
R1222	1-216-017-91	RES,CHIP	47	5%	1/10W
R1223	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1224	1-216-033-00	RES,CHIP	220	5%	1/10W
R1225	1-216-295-91	SHORT	0		
R1226	1-216-295-91	SHORT	0		
R1227	1-216-017-91	RES,CHIP	47	5%	1/10W
R1228	1-216-017-91	RES,CHIP	47	5%	1/10W
R1229	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R1230	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1231	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1232	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1233	1-216-025-91	RES,CHIP	100	5%	1/10W
R1234	1-216-033-00	RES,CHIP	220	5%	1/10W
R1235	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1236	1-216-077-91	RES,CHIP	15K	5%	1/10W
R1237	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1238	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1239	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1240	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1241	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1242	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1243	1-216-091-00	RES,CHIP	56K	5%	1/10W
R1244	1-216-073-00	RES,CHIP	10K	5%	1/10W
	<NETWORK>				
RB1201	1-233-576-11	RES, CHIP NETWORK 100			
	<SWITCH>				
SW1201	1-571-589-11	SWITCH, SLIDE (DIGITAL RGB/5BN/RGB)			
	<CRYSTAL>				
X1201	1-781-163-11	VIBRATOR, OSCILLATOR (24.0MHz)			
X1202	1-781-170-21	VIBRATOR, CERAMIC (6.0MHz)			

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* A-1275-181-A QD COMPL

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Ref.No.	Part No.	Description			Remark
	<CAPACITOR>				
C1901	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1902	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1903	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1904	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1905	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1906	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1908	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1909	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1910	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1911	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1912	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1915	1-109-994-11	CERAMIC CHIP	2.2µF	10%	10V
C1916	1-124-779-00	ELECT CHIP	10µF	20%	16V
C1917	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1918	1-109-994-11	CERAMIC CHIP	2.2µF	10%	10V
C1919	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
	<CONNECTOR>				
CN1901	1-573-806-21	PIN, CONNECTOR (1.5MM) (SMD)6P			
CN1902	1-573-290-21	PIN, CONNECTOR (1.5MM) (SMD)4P			
CN1903	* 1-764-177-11	PIN, CONNECTOR (SMD)(1.5MM) 7P			
CN1904	1-565-269-11	SOCKET, CONNECTOR (D-DUB,L) 9P (RS-232C/422)			
	<DIODE>				
D1901	8-719-037-53	DIODE RD27SB-T1			
D1902	8-719-037-53	DIODE RD27SB-T1			
D1903	8-719-914-42	DIODE DA204K			
D1904	8-719-037-53	DIODE RD27SB-T1			
D1905	8-719-037-53	DIODE RD27SB-T1			
D1906	8-719-914-42	DIODE DA204K			
D1907	8-719-914-43	DIODE DAN202K			
D1908	8-719-914-44	DIODE DAP202K			

Ref.No.	Part No.	Description			Remark
D1909	8-719-158-37	DIODE RD9.1SB2			
D1910	8-719-158-37	DIODE RD9.1SB2			
D1911	8-719-158-37	DIODE RD9.1SB2			
D1912	8-719-158-37	DIODE RD9.1SB2			
D1913	8-719-158-37	DIODE RD9.1SB2			
D1914	8-719-158-37	DIODE RD9.1SB2			

<IC>

Ref.No.	Part No.	Description			Remark
IC1901	8-759-252-59	IC MAX202CSE			
IC1902	8-759-285-61	IC PC74HC123D-T			

<JACK>

Ref.No.	Part No.	Description			Remark
J1901	1-770-053-11	TERMINAL BLOCK, S(LIGHT ANGLE)			
J1902	1-695-473-11	JACK (CONTROLS-IN)			

<COIL>

Ref.No.	Part No.	Description			Remark
L1901	1-412-363-21	FERRITE	0µH		
L1902	1-412-363-21	FERRITE	0µH		
L1903	1-412-363-21	FERRITE	0µH		

<TRANSISTOR>

Ref.No.	Part No.	Description			Remark
Q1901	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1902	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1903	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q1904	1-801-806-11	TRANSISTOR DTC144EKA-T146			

<RESISTOR>

Ref.No.	Part No.	Description			Remark
R1901	1-216-295-91	SHORT	0		
R1902	1-216-295-91	SHORT	0		
R1903	1-216-295-91	SHORT	0		
R1904	1-216-295-91	SHORT	0		
R1914	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1915	1-216-148-00	RES,CHIP	8.2	5%	1/8W
R1916	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1917	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1918	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1919	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1920	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1921	1-216-025-91	RES,CHIP	100	5%	1/10W
R1922	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1923	1-216-025-91	RES,CHIP	100	5%	1/10W
R1924	1-216-308-00	RES,CHIP	4.7	5%	1/10W
R1925	1-216-025-91	RES,CHIP	100	5%	1/10W
R1926	1-216-113-00	RES,CHIP	470K	5%	1/10W

<NETWORK>

Ref.No.	Part No.	Description			Remark
RB1901	1-233-576-11	RES, CHIP NETWORK 100			

<TEST PIN>

Ref.No.	Part No.	Description			Remark
TP1901	1-535-757-11	CHIP, CHECKER			
TP1902	1-535-757-11	CHIP, CHECKER			

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* A-1316-484-A GC COMPL

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<CAPACITOR>

Ref.No.	Part No.	Description			Remark
C2500	1-126-400-11	ELECT CHIP	22µF	20%	35V
C2501	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V
C2502	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2503	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2504	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C2507	1-115-737-11	ELECT	0.001F	20%	10V
C2510	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2511	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V

<CONNECTOR>

Ref.No.	Part No.	Description			Remark
CN2500	* 1-774-245-11	CONNECTOR, BOARD TO BOARD 8P			
CN2502	* 1-564-509-11	PLUG, CONNECTOR 6P			

<DIODE>

Ref.No.	Part No.	Description			Remark
D2500	8-719-056-97	DIODE UDZ-TE-17-27B			
D2501	8-719-104-34	DIODE 1S2836			
D2502	8-719-055-30	DIODE D1FS4A-TA			

<IC>

Ref.No.	Part No.	Description			Remark
IC2500	8-759-389-95	IC MAX797ESE-TE2			

<COIL>

Ref.No.	Part No.	Description			Remark
L2500	1-416-606-11	INDUCTOR	47µH		

<TRANSISTOR>

Ref.No.	Part No.	Description			Remark
Q2500	8-729-048-98	TRANSISTOR 2SK2281-4061			
Q2501	8-729-048-98	TRANSISTOR 2SK2281-4061			

<RESISTOR>

Ref.No.	Part No.	Description			Remark
R2502	1-216-295-91	SHORT	0		
R2504	1-216-295-91	SHORT	0		
R2505	1-216-295-91	SHORT	0		
R2506	1-240-182-91	REGISTER	0		
R2508	1-216-295-91	SHORT	0		
R2509	1-216-295-91	SHORT	0		

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* A-1316-485-A GD COMPL

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<CAPACITOR>

Ref.No.	Part No.	Description			Remark
C2700	1-126-400-11	ELECT CHIP	22µF	20%	35V
C2701	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V
C2702	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2703	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2704	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C2705	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2706	1-126-397-11	ELECT CHIP	33µF	20%	25V
C2707	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2708	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2709	1-111-066-11	ELECT	820µF	20%	25V

Ref.No.	Part No.	Description			Remark
C2710	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2711	1-126-397-11	ELECT CHIP	33µF	20%	25V
C2713	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2726	1-164-505-11	CERAMIC CHIP	2.2µF		16V
	<CONNECTOR>				
CN2700	* 1-774-245-11	CONNECTOR, BOARD TO BOARD 8P			
CN2701	* 1-564-714-11	PIN, CONNECTOR (SMALL TYPE)12P			
	<DIODE>				
D2700	8-719-056-97	DIODE UDZ-TE-17-27B			
D2701	8-719-104-34	DIODE 1S2836			
D2702	8-719-055-30	DIODE D1FS4A-TA			
	<IC>				
IC2700	8-759-389-95	IC MAX797ESE-TE2			
IC2701	8-759-388-31	IC PQ20VZ1U			
IC2702	8-759-388-31	IC PQ20VZ1U			
	<COIL>				
L2700	1-416-606-11	INDUCTOR	47µH		
	<TRANSISTOR>				
Q2700	8-729-048-98	TRANSISTOR 2SK2281-4061			
Q2701	8-729-048-98	TRANSISTOR 2SK2281-4061			
	<RESISTOR>				
R2701	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2702	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2703	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2704	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R2705	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R2706	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R2707	1-216-642-11	METAL CHIP	430	0.50%	1/10W
R2708	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R2709	1-240-216-91	REGISTER	0		
R2710	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R2711	1-216-642-11	METAL CHIP	430	0.50%	1/10W
R2712	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R2713	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2714	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2715	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2716	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R2717	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R2718	1-216-025-91	RES,CHIP	100	5%	1/10W
R2719	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R2720	1-216-025-91	RES,CHIP	100	5%	1/10W
R2722	1-216-686-11	METAL CHIP	30K	0.50%	1/10W

Ref.No.	Part No.	Description			Remark
	**				
	* A-1316-486-A	GA COMPL **********************			
	4-034-094-01	SHEET, INSULATOR			
	7-682-648-09	SCREW +PS 3X8			
	<CAPACITOR>				
C2100	1-137-477-61	MYLAR	0.47µF	10%	400V
C2101	1-164-346-11	CERAMIC CHIP	1µF		16V
C2102	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2103	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2104	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C2105	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2106	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C2107	1-101-821-00	CERAMIC	0.0022µF		500V
C2110	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2112	1-117-751-11	ELECT(BLOCK)	220µF	20%	450V
C2113	1-117-751-11	ELECT(BLOCK)	220µF	20%	450V
C2114	1-109-892-11	ELECT CHIP	47µF	20%	25V
C2115	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2116	1-107-888-11	ELECT	47µF	20%	25V
C2117	1-107-889-11	ELECT	220µF	20%	25V
C2119	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2121	1-130-202-00	FILM	0.022µF	5%	400V
C2122	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2124	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C2125	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C2126	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2127	1-115-805-11	ELECT	180µF	20%	35V
C2128	1-115-798-11	ELECT	0.0039F	20%	25V
C2129	1-115-785-11	ELECT	470µF	20%	25V
C2131	1-115-818-11	ELECT	0.0018F	20%	35V
C2132	1-115-818-11	ELECT	0.0018F	20%	35V
C2135	1-163-021-91	CERAMIC CHIP	01µF	10%	50V
C2141	1-163-009-11	CERAMIC CHIP	001µF	10%	50V
C2165	1-163-021-91	CERAMIC CHIP	01µF	10%	50V
C2170	1-115-730-11	ELECT	180µF	20%	10V
C2171	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C2172	1-117-228-11	MYLAR	2.2µF	10%	450V
C2173	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C2174	1-107-910-11	ELECT	100µF	20%	50V
C2175	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C2176	1-115-810-11	ELECT	390µF	20%	35V
	<CONNECTOR>				
CN2101	* 1-774-248-11	CONNECTOR, BOARD TO BOARD 8P			
CN2102	* 1-774-248-11	CONNECTOR, BOARD TO BOARD 8P			
CN2103	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN2104	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN2105	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN2106	* 1-774-248-11	CONNECTOR, BOARD TO BOARD 8P			
CN2110	* 1-900-249-69	CONNECTOR ASSY, RELAY (GA) 3P			
CN2111	* 1-900-249-70	CONNECTOR ASSY, VH 3P			
	<DIODE>				
D2100	⚠8-719-066-75	DIODE D6SB80			
D2102	8-719-066-76	DIODE TF861S			
D2103	8-719-055-30	DIODE D1FS4A-TA			
D2105	8-719-056-97	DIODE UDZ-TE-17-27B			
D2106	8-719-304-63	DIODE RM11C			
D2107	8-719-056-97	DIODE UDZ-TE-17-27B			
D2108	8-719-060-06	DIODE FSF10A60			

Ref.No.	Part No.	Description	Remark
D2110	8-719-073-01	DIODE MA111-(K8).S0	
D2111	8-719-104-34	DIODE 1S2836	
D2112	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D2113	8-719-106-71	DIODE RD12M-B2	
D2114	8-719-071-96	DIODE P6KE350A	
D2115	8-719-073-36	DIODE P6KE300A	
D2116	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D2117	8-719-510-30	DIODE D2FL20	
D2118	8-719-059-23	DIODE P6KE200AG23	
D2119	8-719-051-96	DIODE FMG-G2CS	
D2120	8-719-073-36	DIODE P6KE300A	
D2121	8-719-051-96	DIODE FMG-G2CS	
D2122	8-719-071-96	DIODE P6KE350A	
D2123	8-719-073-36	DIODE P6KE300A	
D2124	8-719-055-33	DIODE D1FL40	
D2125	8-719-510-30	DIODE D2FL20	
D2126	8-719-510-30	DIODE D2FL20	
D2127	8-719-053-50	DIODE FCQ20A06	
D2128	8-719-073-52	DIODE D2FS6-TA	
D2129	8-719-510-41	DIODE D10SC9M	
D2130	8-719-510-30	DIODE D2FL20	
D2131	8-719-510-30	DIODE D2FL20	
D2132	8-719-510-41	DIODE D10SC9M	
D2133	8-719-056-97	DIODE UDZ-TE-17-27B	
D2134	8-719-510-37	DIODE D5LC20U	
D2135	8-719-510-37	DIODE D5LC20U	
D2136	8-719-510-37	DIODE D5LC20U	
D2137	8-719-510-37	DIODE D5LC20U	
D2138	8-719-510-37	DIODE D5LC20U	
D2139	8-719-510-37	DIODE D5LC20U	
D2140	8-719-073-52	DIODE D2FS6-TA	
D2141	8-719-073-52	DIODE D2FS6-TA	
D2142	8-719-073-01	DIODE MA111-(K8).S0	
D2143	8-719-073-01	DIODE MA111-(K8).S0	
D2144	8-719-073-01	DIODE MA111-(K8).S0	
D2145	8-719-073-01	DIODE MA111-(K8).S0	
D2146	8-719-073-01	DIODE MA111-(K8).S0	
D2147	8-719-045-99	DIODE RD2.2M-T1B	
D2148	8-719-978-04	DIODE DTZ-TT11-3.3B	
D2149	8-719-045-99	DIODE RD2.2M-T1B	
	<IC>		
IC2100	8-759-641-00	IC MC33262DR2	
IC2101	8-759-490-02	IC TOP224Y-BB	
IC2102	8-759-470-64	IC TOP223Y-BB	
IC2103	8-759-388-23	IC TL431BCDR2	
IC2104	8-759-100-93	IC UPC393G2	
IC2105	8-759-388-23	IC TL431BCDR2	
	<COIL>		
L2100	1-419-302-11	INDUCTOR 250µH	
L2101	1-406-971-51	INDUCTOR 10µH	
L2102	1-406-665-11	INDUCTOR 100µH	
L2103	1-406-665-11	INDUCTOR 100µH	
L2105	1-406-975-21	INDUCTOR 47µH	
L2106	1-406-975-21	INDUCTOR 47µH	
L2107	1-406-663-21	INDUCTOR 47µH	
L2108	1-406-663-21	INDUCTOR 47µH	
L2109	1-406-971-51	INDUCTOR 10µH	
L2110	1-419-350-11	INDUCTOR 690µH	
L2120	1-416-758-21	INDUCTOR 22µH	

Ref.No.	Part No.	Description	Remark
	<PHOTO COUPLER>		
PH2100	8-749-010-64	PHOTO COUPLER PC123F2	
PH2101	8-749-010-64	PHOTO COUPLER PC123F2	
	<TRANSISTOR>		
Q2100	8-729-041-01	TRANSISTOR 2SK2198	
Q2101	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2102	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2103	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2104	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2105	8-729-101-07	TRANSISTOR 2SB798-DL	
Q2106	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2107	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2108	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2109	8-729-807-51	TRANSISTOR 2SD1623-S	
Q2110	8-729-101-07	TRANSISTOR 2SB798-DL	
Q2111	8-729-216-22	TRANSISTOR 2SA1162-G	
	<RESISTOR>		
R2079	1-218-369-11	RES,CHIP 2.2K 5% 1/2W	
R2085	1-216-039-00	RES,CHIP 390 5% 1/10W	
R2088	1-249-393-11	CARBON 10 5% 1/4W	F
R2089	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2090	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R2091	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2092	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2093	1-216-099-00	RES,CHIP 120K 5% 1/10W	
R2094	1-216-099-00	RES,CHIP 120K 5% 1/10W	
R2095	1-216-099-00	RES,CHIP 120K 5% 1/10W	
R2097	1-216-095-00	RES,CHIP 82K 5% 1/10W	
R2098	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2100	1-216-041-00	RES,CHIP 470 5% 1/10W	
R2101	1-219-363-11	FUSIBLE 5.6 5% 5W	F
R2102	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R2104	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2105	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2106	1-219-738-11	METAL 0.08 10% 5W	
R2107	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2108	1-216-041-00	RES,CHIP 470 5% 1/10W	
R2109	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2110	1-249-393-11	CARBON 10 5% 1/4W	F
R2111	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2112	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R2113	1-218-756-11	METAL CHIP 150K 0.50% 1/10W	
R2114	1-218-756-11	METAL CHIP 150K 0.50% 1/10W	
R2115	1-218-756-11	METAL CHIP 150K 0.50% 1/10W	
R2116	1-218-759-11	METAL CHIP 200K 0.50% 1/10W	
R2117	1-218-759-11	METAL CHIP 200K 0.50% 1/10W	
R2118	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2119	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2120	1-218-369-11	RES,CHIP 2.2K 5% 1/2W	
R2121	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R2122	1-216-295-91	SHORT 0	
R2124	1-216-295-91	SHORT 0	
R2125	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R2126	1-216-025-91	RES,CHIP 100 5% 1/10W	
R2127	1-218-764-11	METAL CHIP 330K 0.50% 1/10W	
R2128	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2129	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2130	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2131	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2132	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R2133	1-216-675-91	METAL CHIP 10K 0.50% 1/10W	
R2134	1-220-337-11	RES,CHIP 270K 5% 1/2W	

Ref.No.	Part No.	Description			Remark	
R2135	1-220-337-11	RES,CHIP	270K	5%	1/2W	
R2136	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R2138	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2139	1-249-385-11	CARBON	2.2	5%	1/4W	F
R2140	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2141	1-216-311-00	RES,CHIP	6.8	5%	1/10W	
R2142	1-216-033-00	RES,CHIP	220	5%	1/10W	
R2143	1-216-311-00	RES,CHIP	6.8	5%	1/10W	
R2144	1-216-009-91	RES,CHIP	22	5%	1/10W	
R2145	1-216-492-21	METAL OXIDE	82K	5%	3W	F
R2146	1-216-492-21	METAL OXIDE	82K	5%	3W	F
R2147	1-216-492-21	METAL OXIDE	82K	5%	3W	F
R2148	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2149	1-216-039-00	RES,CHIP	390	5%	1/10W	
R2150	1-216-039-00	RES,CHIP	390	5%	1/10W	
R2151	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R2152	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2153	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2154	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R2155	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R2156	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2157	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2158	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R2159	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R2160	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R2161	1-216-029-00	RES,CHIP	150	5%	1/10W	
R2162	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R2163	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R2164	1-216-099-00	RES,CHIP	120K	5%	1/10W	
R2165	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2166	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R2170	1-218-756-11	METAL CHIP	150K	0.50%	1/10W	
R2171	1-218-756-11	METAL CHIP	150K	0.50%	1/10W	
R2172	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R2173	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R2174	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R2175	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R2176	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R2177	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R2179	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R2180	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2181	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2182	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R2183	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2184	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2185	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2186	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2187	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R2188	1-216-041-00	RES,CHIP	470	5%	1/10W	
R2189	1-216-077-91	RES,CHIP	15K	5%	1/10W	
R2190	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2191	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R2192	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R2193	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2194	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2195	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R2196	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R2197	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2198	1-216-073-00	RES,CHIP	10K	5%	1/10W	

Ref.No.	Part No.	Description			Remark
	<TRANSFORMER>				
T2100	1-435-145-11	TRANSFORMER, CONVERTER (SRT)			
T2101	1-435-144-11	TRANSFORMER, CONVERTER (SRT)			

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* A-1316-487-A GB COMPL

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Ref.No.	Part No.	Description			Remark
	<CAPACITOR>				
C2300	1-126-397-11	ELECT CHIP	33μF	20%	25V
C2301	1-110-501-11	CERAMIC CHIP	0.33μF	10%	16V
C2302	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C2303	1-164-506-11	CERAMIC CHIP	4.7μF		16V
C2304	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C2305	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C2306	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C2307	1-115-781-11	ELECT	220μF	20%	10V
C2308	1-115-734-11	ELECT	680μF	20%	10V
C2310	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C2311	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
	<CONNECTOR>				
CN2300	* 1-774-245-11	CONNECTOR, BOARD TO BOARD 8P			
CN2301	* 1-564-508-11	PLUG, CONNECTOR 5P			
	<DIODE>				
D2300	8-719-056-97	DIODE UDZ-TE-17-27B			
D2301	8-719-104-34	DIODE 1S2836			
D2302	8-719-055-30	DIODE D1FS4A-TA			
	<IC>				
IC2300	8-759-389-95	IC MAX797ESE-TE2			
	<COIL>				
L2300	1-406-974-61	INDUCTOR	33μH		
L2301	1-416-949-21	INDUCTOR	15μH		
	<TRANSISTOR>				
Q2300	8-729-048-98	TRANSISTOR 2SK2281-4061			
Q2301	8-729-048-98	TRANSISTOR 2SK2281-4061			
	<RESISTOR>				
R2301	1-216-295-91	SHORT	0		
R2303	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2304	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R2305	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R2306	1-240-216-91	REGISTER	0		
R2307	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2308	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R2309	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W

Ref.No.	Part No.	Description			Remark
**					
	* A-1335-121-A	C COMPL **********************			
	<CAPACITOR>				
C600	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C601	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C602	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C604	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C605	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C606	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C607	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C608	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C609	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C610	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C616	1-124-779-00	ELECT CHIP	10µF	20%	16V
C617	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C619	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C626	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C627	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C628	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C629	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C630	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C631	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C633	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C634	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C635	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C636	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C637	1-128-401-11	ELECT CHIP	100µF	20%	25V
C639	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C640	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C643	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C644	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C645	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C646	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C647	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C648	1-117-681-11	ELECT CHIP	100µF	20%	16V
C649	1-117-681-11	ELECT CHIP	100µF	20%	16V
C650	1-117-681-11	ELECT CHIP	100µF	20%	16V
C651	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C652	1-117-681-11	ELECT CHIP	100µF	20%	16V
C653	1-117-681-11	ELECT CHIP	100µF	20%	16V
C654	1-128-401-11	ELECT CHIP	100µF	20%	25V
C657	1-128-400-11	ELECT CHIP	47µF	20%	25V
C658	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C660	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C662	1-128-401-11	ELECT CHIP	100µF	20%	25V
C663	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C664	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C665	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C666	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C667	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C668	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C670	1-128-401-11	ELECT CHIP	100µF	20%	25V
C672	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C675	1-164-004-11	CERAMIC CHIP	0.1µMF	10%	25V
C676	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C677	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C678	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C679	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C680	1-117-681-11	ELECT CHIP	100µF	20%	16V
C681	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C683	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C685	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C686	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C687	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C689	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C690	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C691	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C693	1-128-401-11	ELECT CHIP	100µF	20%	25V
C695	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C698	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C699	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C700	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C701	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C702	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C703	1-117-681-11	ELECT CHIP	100µF	20%	16V
C704	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C706	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C708	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C711	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C719	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C724	1-128-401-11	ELECT CHIP	100µF	20%	25V
C725	1-117-681-11	ELECT CHIP	100µF	20%	16V
C754	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C755	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C757	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C759	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C762	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C763	1-126-602-11	ELECT CHIP	3.3µF	20%	50V
C764	1-126-602-11	ELECT CHIP	3.3µF	20%	50V
C765	1-126-602-11	ELECT CHIP	3.3µF	20%	50V
C769	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C772	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C773	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C774	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C778	1-117-681-11	ELECT CHIP	100µF	20%	16V
C779	1-117-681-11	ELECT CHIP	100µF	20%	16V
C780	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C781	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C782	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C789	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
	<CONNECTOR>				
CN600	* 1-691-591-11	PIN, CONNECTOR (1.5MM) (SMD)8P			
CN601	1-774-932-21	CONNECTOR, FFC/FPC (ZIF) 32P			
CN602	1-774-932-21	CONNECTOR, FFC/FPC (ZIF) 32P			
CN603	1-774-932-21	CONNECTOR, FFC/FPC (ZIF) 32P			
CN605	* 1-785-306-21	CONNECTOR, BOARD TO BOARD70P			
	<DIODE>				
D601	8-719-159-06	DIODE RD4.7SB-T2			
D606	8-719-977-95	DIODE DTZ-TT11-2.4B			
	<FERRITE BEAD>				
FB600	1-414-921-11	INDUCTOR CHIP		0µH	
FB602	1-414-921-11	INDUCTOR CHIP		0µH	
FB603	1-414-921-11	INDUCTOR CHIP		0µH	
FB604	1-414-921-11	INDUCTOR CHIP		0µH	
FB605	1-414-921-11	INDUCTOR CHIP		0µH	
FB607	1-414-921-11	INDUCTOR CHIP		0µH	
FB608	1-414-921-11	INDUCTOR CHIP		0µH	
FB609	1-414-921-11	INDUCTOR CHIP		0µH	
FB611	1-414-921-11	INDUCTOR CHIP		0µH	
FB613	1-414-921-11	INDUCTOR CHIP		0µH	
FB614	1-414-921-11	INDUCTOR CHIP		0µH	
FB615	1-414-921-11	INDUCTOR CHIP		0µH	
FB616	1-414-921-11	INDUCTOR CHIP		0µH	
FB618	1-414-921-11	INDUCTOR CHIP		0µH	
FB619	1-414-921-11	INDUCTOR CHIP		0µH	

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Ref.No.	Part No.	Description	Remark
FB620	1-414-921-11	INDUCTOR CHIP 0µH	
FB622	1-414-921-11	INDUCTOR CHIP 0µH	
FB624	1-414-921-11	INDUCTOR CHIP 0µH	
FB625	1-414-921-11	INDUCTOR CHIP 0µH	
FB626	1-414-921-11	INDUCTOR CHIP 0µH	
FB627	1-414-921-11	INDUCTOR CHIP 0µH	
FB629	1-414-921-11	INDUCTOR CHIP 0µH	
FB630	1-414-921-11	INDUCTOR CHIP 0µH	
FB631	1-414-921-11	INDUCTOR CHIP 0µH	
FB633	1-414-921-11	INDUCTOR CHIP 0µH	
FB634	1-414-921-11	INDUCTOR CHIP 0µH	
FB635	1-414-921-11	INDUCTOR CHIP 0µH	
FB636	1-414-921-11	INDUCTOR CHIP 0µH	
FB637	1-414-921-11	INDUCTOR CHIP 0µH	
FB638	1-414-921-11	INDUCTOR CHIP 0µH	
FB639	1-414-748-11	FERRITE 0µH	
FB640	1-414-748-11	FERRITE 0µH	
FB641	1-414-921-11	INDUCTOR CHIP 0µH	
FB642	1-414-921-11	INDUCTOR CHIP 0µH	
FB643	1-414-921-11	INDUCTOR CHIP 0µH	
FB644	1-414-921-11	INDUCTOR CHIP 0µH	
FB645	1-414-921-11	INDUCTOR CHIP 0µH	
	<IC>		
IC600	8-759-584-86	IC M52749FP-TP	
IC602	8-759-482-47	IC M62399FP-TE2	
IC603	8-752-080-99	IC CXA2112R	
IC604	8-752-080-99	IC CXA2112R	
IC605	8-759-157-17	IC PQ05SZ1U	
IC606	8-759-157-17	IC PQ05SZ1U	
IC608	8-759-259-77	IC PQ20VZ5U	
IC609	8-752-080-99	IC CXA2112R	
IC610	8-752-080-99	IC CXA2112R	
IC611	8-752-080-99	IC CXA2112R	
IC612	8-752-080-99	IC CXA2112R	
IC613	8-759-351-63	IC TA7812F(TE16L)	
IC614	8-759-490-41	IC TC74VHCT541AFT(EL)	
IC615	8-759-490-41	IC TC74VHCT541AFT(EL)	
IC624	8-759-449-58	IC LM7131BCM5X	
IC625	8-759-482-35	IC MC100ELT20DR2	
IC626	8-759-523-84	IC TC74VHC14FT(EL)	
	<COIL>		
L601	1-410-393-11	INDUCTOR CHIP 100µH	
L602	1-410-369-11	INDUCTOR CHIP 1µH	
L603	1-410-369-11	INDUCTOR CHIP 1µH	
L604	1-410-369-11	INDUCTOR CHIP 1µH	
L605	1-410-369-11	INDUCTOR CHIP 1µH	
L606	1-410-369-11	INDUCTOR CHIP 1µH	
L607	1-410-369-11	INDUCTOR CHIP 1µH	
L609	1-410-381-11	INDUCTOR CHIP 10µH	
L611	1-409-556-11	INDUCTOR 47µH	
L612	1-409-556-11	INDUCTOR 47µH	
	<TRANSISTOR>		
Q600	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q601	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q602	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q603	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q604	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q605	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q606	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q607	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q608	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q612	8-729-112-65	TRANSISTOR 2SA1462-Y33	

Ref.No.	Part No.	Description	Remark
	<RESISTOR>		
R470	1-216-805-11	RES,CHIP 47 5% 1/16W	
R471	1-216-805-11	RES,CHIP 47 5% 1/16W	
R472	1-216-805-11	RES,CHIP 47 5% 1/16W	
R474	1-216-805-11	RES,CHIP 47 5% 1/16W	
R475	1-216-805-11	RES,CHIP 47 5% 1/16W	
R476	1-216-805-11	RES,CHIP 47 5% 1/16W	
R477	1-216-805-11	RES,CHIP 47 5% 1/16W	
R478	1-216-805-11	RES,CHIP 47 5% 1/16W	
R479	1-216-805-11	RES,CHIP 47 5% 1/16W	
R480	1-216-805-11	RES,CHIP 47 5% 1/16W	
R482	1-216-814-11	RES,CHIP 270 5% 1/16W	
R483	1-216-805-11	RES,CHIP 47 5% 1/16W	
R484	1-216-817-11	RES,CHIP 470 5% 1/16W	
R485	1-216-864-11	SHORT 0	
R486	1-216-864-11	SHORT 0	
R487	1-216-815-11	RES,CHIP 330 5% 1/16W	
R488	1-216-815-11	RES,CHIP 330 5% 1/16W	
R600	1-216-809-11	RES,CHIP 100 5% 1/16W	
R601	1-216-809-11	RES,CHIP 100 5% 1/16W	
R602	1-216-809-11	RES,CHIP 100 5% 1/16W	
R603	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R604	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R605	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R606	1-216-809-11	RES,CHIP 100 5% 1/16W	
R607	1-216-809-11	RES,CHIP 100 5% 1/16W	
R608	1-216-816-11	RES,CHIP 390 5% 1/16W	
R609	1-220-373-11	RES,CHIP 620 5% 1/16W	
R611	1-216-816-11	RES,CHIP 390 5% 1/16W	
R613	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R615	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R617	1-216-825-11	RES,CHIP 2.2K 5% 1/16W	
R618	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R619	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R620	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R621	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R622	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R623	1-216-789-11	RES,CHIP 2.2 5% 1/16W	
R624	1-216-864-11	SHORT 0	
R625	1-216-864-11	SHORT 0	
R626	1-216-864-11	SHORT 0	
R629	1-216-805-11	RES,CHIP 47 5% 1/16W	
R631	1-220-373-11	RES,CHIP 620 5% 1/16W	
R634	1-216-833-91	RES,CHIP 10K 5% 1/16W	
R635	1-216-822-11	RES,CHIP 1.2K 5% 1/16W	
R636	1-220-158-11	RES,CHIP 3.6K 5% 1/16W	
R638	1-216-809-11	RES,CHIP 100 5% 1/16W	
R639	1-216-809-11	RES,CHIP 100 5% 1/16W	
R640	1-216-829-11	RES,CHIP 4.7K 5% 1/16W	
R641	1-216-809-11	RES,CHIP 100 5% 1/16W	
R644	1-216-821-11	RES,CHIP 1K 5% 1/16W	
R645	1-216-805-11	RES,CHIP 47 5% 1/16W	
R646	1-216-805-11	RES,CHIP 47 5% 1/16W	
R647	1-216-809-11	RES,CHIP 100 5% 1/16W	
R648	1-216-809-11	RES,CHIP 100 5% 1/16W	
R649	1-216-809-11	RES,CHIP 100 5% 1/16W	
R650	1-216-809-11	RES,CHIP 100 5% 1/16W	
R652	1-216-816-11	RES,CHIP 390 5% 1/16W	
R653	1-220-373-11	RES,CHIP 620 5% 1/16W	
R656	1-216-864-11	SHORT 0	
R657	1-216-864-11	SHORT 0	
R658	1-216-864-11	SHORT 0	
R661	1-216-864-11	SHORT 0	
R662	1-216-864-11	SHORT 0	
R663	1-216-864-11	SHORT 0	
R665	1-216-845-11	RES,CHIP 100K 5% 1/16W	

Ref.No.	Part No.	Description			Remark
R666	1-216-805-11	RES,CHIP	47	5%	1/16W
R670	1-216-833-91	RES,CHIP	10K	5%	1/16W
R671	1-216-864-11	SHORT	0		
R672	1-216-864-11	SHORT	0		
R674	1-216-864-11	SHORT	0		
R676	1-216-864-11	SHORT	0		
R677	1-216-845-11	RES,CHIP	100K	5%	1/16W
R678	1-216-864-11	SHORT	0		
R682	1-216-864-11	SHORT	0		
R683	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R684	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R685	1-216-864-11	SHORT	0		
R686	1-216-805-11	RES,CHIP	47	5%	1/16W
R687	1-216-805-11	RES,CHIP	47	5%	1/16W
R688	1-216-805-11	RES,CHIP	47	5%	1/16W
R689	1-216-805-11	RES,CHIP	47	5%	1/16W
R690	1-216-805-11	RES,CHIP	47	5%	1/16W
R691	1-216-805-11	RES,CHIP	47	5%	1/16W
R692	1-216-805-11	RES,CHIP	47	5%	1/16W
R693	1-216-805-11	RES,CHIP	47	5%	1/16W
R694	1-216-805-11	RES,CHIP	47	5%	1/16W
R695	1-216-805-11	RES,CHIP	47	5%	1/16W
R696	1-216-805-11	RES,CHIP	47	5%	1/16W
R697	1-216-805-11	RES,CHIP	47	5%	1/16W
R698	1-216-864-11	SHORT	0		
R699	1-216-833-91	RES,CHIP	10K	5%	1/16W
R701	1-216-833-91	RES,CHIP	10K	5%	1/16W
R703	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R704	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R705	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R706	1-216-833-91	RES,CHIP	10K	5%	1/16W
R708	1-216-833-91	RES,CHIP	10K	5%	1/16W
R709	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R710	1-216-864-11	SHORT	0		
R711	1-216-864-11	SHORT	0		
R715	1-216-864-11	SHORT	0		
R716	1-216-864-11	SHORT	0		
R717	1-216-864-11	SHORT	0		
R718	1-216-845-11	RES,CHIP	100K	5%	1/16W
R719	1-216-805-11	RES,CHIP	47	5%	1/16W
R723	1-216-833-91	RES,CHIP	10K	5%	1/16W
R724	1-216-864-11	SHORT	0		
R725	1-216-864-11	SHORT	0		
R727	1-216-864-11	SHORT	0		
R729	1-216-864-11	SHORT	0		
R730	1-216-845-11	RES,CHIP	100K	5%	1/16W
R731	1-216-864-11	SHORT	0		
R735	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R736	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R737	1-216-864-11	SHORT	0		
R738	1-216-805-11	RES,CHIP	47	5%	1/16W
R739	1-216-805-11	RES,CHIP	47	5%	1/16W
R740	1-216-805-11	RES,CHIP	47	5%	1/16W
R741	1-216-805-11	RES,CHIP	47	5%	1/16W
R742	1-216-805-11	RES,CHIP	47	5%	1/16W
R743	1-216-805-11	RES,CHIP	47	5%	1/16W
R744	1-216-805-11	RES,CHIP	47	5%	1/16W
R745	1-216-805-11	RES,CHIP	47	5%	1/16W
R746	1-216-805-11	RES,CHIP	47	5%	1/16W
R747	1-216-805-11	RES,CHIP	47	5%	1/16W
R748	1-216-805-11	RES,CHIP	47	5%	1/16W
R749	1-216-805-11	RES,CHIP	47	5%	1/16W
R750	1-216-864-11	SHORT	0		
R751	1-216-864-11	SHORT	0		
R753	1-216-864-11	SHORT	0		
R754	1-216-864-11	SHORT	0		
R755	1-216-864-11	SHORT	0		
R757	1-216-864-11	SHORT	0		
R758	1-216-864-11	SHORT	0		
R762	1-216-864-11	SHORT	0		
R763	1-216-864-11	SHORT	0		
R764	1-216-864-11	SHORT	0		
R765	1-216-845-11	RES,CHIP	100K	5%	1/16W
R766	1-216-797-11	RES,CHIP	10	5%	1/16W
R770	1-216-833-91	RES,CHIP	10K	5%	1/16W
R771	1-216-864-11	SHORT	0		
R772	1-216-864-11	SHORT	0		
R774	1-216-864-11	SHORT	0		
R776	1-216-864-11	SHORT	0		
R777	1-216-845-11	RES,CHIP	100K	5%	1/16W
R778	1-216-864-11	SHORT	0		
R782	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R783	1-218-726-11	METAL CHIP	27K	0.50%	1/16W
R784	1-216-864-11	SHORT	0		
R785	1-216-805-11	RES,CHIP	47	5%	1/16W
R786	1-216-805-11	RES,CHIP	47	5%	1/16W
R787	1-216-805-11	RES,CHIP	47	5%	1/16W
R788	1-216-805-11	RES,CHIP	47	5%	1/16W
R789	1-216-805-11	RES,CHIP	47	5%	1/16W
R790	1-216-805-11	RES,CHIP	47	5%	1/16W
R791	1-216-805-11	RES,CHIP	47	5%	1/16W
R792	1-216-805-11	RES,CHIP	47	5%	1/16W
R793	1-216-805-11	RES,CHIP	47	5%	1/16W
R794	1-216-805-11	RES,CHIP	47	5%	1/16W
R795	1-216-805-11	RES,CHIP	47	5%	1/16W
R796	1-216-805-11	RES,CHIP	47	5%	1/16W
R797	1-216-864-11	SHORT	0		
R798	1-216-864-11	SHORT	0		
R799	1-216-864-11	SHORT	0		
R1601	1-216-864-11	SHORT	0		
R1603	1-216-841-11	RES,CHIP	47K	5%	1/16W
R1604	1-216-809-11	RES,CHIP	100	5%	1/16W
R1605	1-216-809-11	RES,CHIP	100	5%	1/16W
R1607	1-216-864-11	SHORT	0		
R1610	1-216-864-11	SHORT	0		
R1615	1-216-864-11	SHORT	0		
R1624	1-216-809-11	RES,CHIP	100	5%	1/16W
R1631	1-218-285-11	RES,CHIP	75	5%	1/16W
R1632	1-218-285-11	RES,CHIP	75	5%	1/16W
R1633	1-218-285-11	RES,CHIP	75	5%	1/16W
R1638	1-216-864-11	SHORT	0		
R1641	1-216-864-11	SHORT	0		
R1647	1-216-041-00	RES,CHIP	470	5%	1/10W
R1648	1-216-041-00	RES,CHIP	470	5%	1/10W
R1649	1-216-041-00	RES,CHIP	470	5%	1/10W
R1656	1-216-864-11	SHORT	0		
R1657	1-216-864-11	SHORT	0		
R1658	1-216-864-11	SHORT	0		
R1659	1-216-805-11	RES,CHIP	47	5%	1/16W
R1660	1-216-805-11	RES,CHIP	47	5%	1/16W
R1661	1-216-805-11	RES,CHIP	47	5%	1/16W
R1662	1-216-864-11	SHORT	0		
R1663	1-216-864-11	SHORT	0		
R1664	1-216-864-11	SHORT	0		
R1666	1-216-821-11	RES,CHIP	1K	5%	1/16W
	<THERMISTOR>				
TH600	1-808-656-11	THERMISTOR			

Ref.No.	Part No.	Description	Remark
	<TEST PIN>		
TP600	1-535-757-11	CHIP, CHECKER	
TP601	1-535-757-11	CHIP, CHECKER	
TP602	1-535-757-11	CHIP, CHECKER	
TP603	1-535-757-11	CHIP, CHECKER	
TP604	1-535-757-11	CHIP, CHECKER	
TP605	1-535-757-11	CHIP, CHECKER	
TP606	1-535-757-11	CHIP, CHECKER	
TP607	1-535-757-11	CHIP, CHECKER	
TP608	1-535-757-11	CHIP, CHECKER	
TP609	1-535-757-11	CHIP, CHECKER	
TP610	1-535-757-11	CHIP, CHECKER	
TP611	1-535-757-11	CHIP, CHECKER	
TP612	1-535-757-11	CHIP, CHECKER	
TP616	1-535-757-11	CHIP, CHECKER	
TP617	1-535-757-11	CHIP, CHECKER	
TP618	1-535-757-11	CHIP, CHECKER	
TP619	1-535-757-11	CHIP, CHECKER	
TP620	1-535-757-11	CHIP, CHECKER	
TP621	1-535-757-11	CHIP, CHECKER	
TP625	1-535-757-11	CHIP, CHECKER	
TP626	1-535-757-11	CHIP, CHECKER	
TP627	1-535-757-11	CHIP, CHECKER	

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* A-1375-193-A H COMPL

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Ref.No.	Part No.	Description	Remark
	<CONNECTOR>		
CN3500	* 1-766-383-11	PIN, CONNECTOR (1.5MM)(SMD)12P	
CN3501	1-573-290-21	PIN, CONNECTOR (1.5MM) (SMD)4P	
CN3502	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P	
CN3503	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P	
	<DIODE>		
D3500	8-719-045-53	DIODE SEC1801C	
D3501	8-719-045-53	DIODE SEC1801C	
D3502	8-719-045-53	DIODE SEC1801C	
D3503	8-719-045-53	DIODE SEC1801C	
D3504	8-719-045-53	DIODE SEC1801C	
D3505	8-719-045-53	DIODE SEC1801C	
D3506	8-719-045-53	DIODE SEC1801C	
D3507	8-719-045-60	DIODE SEC1401C	
D3508	8-719-045-53	DIODE SEC1801C	
D3509	8-719-045-53	DIODE SEC1801C	
D3510	8-719-045-53	DIODE SEC1801C	
D3511	8-719-045-53	DIODE SEC1801C	
D3512	8-719-045-53	DIODE SEC1801C	
D3513	8-719-045-53	DIODE SEC1801C	
D3514	8-719-045-53	DIODE SEC1801C	
D3515	8-719-045-53	DIODE SEC1801C	
D3520	8-719-045-53	DIODE SEC1801C	
D3523	8-719-045-53	DIODE SEC1801C	
D3525	8-719-045-53	DIODE SEC1801C	
D3526	8-719-045-53	DIODE SEC1801C	
D3527	8-719-045-60	DIODE SEC1401C	
D3528	8-719-045-53	DIODE SEC1801C	
D3529	8-719-045-53	DIODE SEC1801C	
D3532	8-719-045-53	DIODE SEC1801C	
D3540	8-719-045-61	DIODE SEC1901C (LAMP-LED)	
D3541	8-719-045-61	DIODE SEC1901C (TEMP-LED)	
D3543	8-719-045-53	DIODE SEC1801C (POWER-SAVE)	

Ref.No.	Part No.	Description	Remark
D3544	8-719-045-51	DIODE SEC2422C (ON/STBY)	
D3550	8-719-914-43	DIODE DAN202K	
D3551	8-719-914-43	DIODE DAN202K	
D3552	8-719-914-43	DIODE DAN202K	
D3553	8-719-914-43	DIODE DAN202K	
D3554	8-719-914-44	DIODE DAP202K	
D3555	8-719-914-44	DIODE DAP202K	
D3556	8-719-914-44	DIODE DAP202K	
D3557	8-719-914-44	DIODE DAP202K	
	<TRANSISTOR>		
Q3540	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3541	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3542	8-729-027-38	TRANSISTOR DTA144EKA-T146	

Ref.No.	Part No.	Description			
	<RESISTOR>				
R3500	1-216-083-00	RES,CHIP	27K	5%	1/10W
R3501	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3502	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R3503	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R3504	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R3505	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3506	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3507	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R3508	1-216-083-00	RES,CHIP	27K	5%	1/10W
R3509	1-216-075-00	RES,CHIP	12K	5%	1/10W
R3510	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R3511	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R3512	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R3513	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3514	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3515	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R3516	1-216-041-00	RES,CHIP	470	5%	1/10W
R3517	1-216-041-00	RES,CHIP	470	5%	1/10W
R3520	1-216-041-00	RES,CHIP	470	5%	1/10W
R3522	1-216-041-00	RES,CHIP	470	5%	1/10W
R3523	1-216-041-00	RES,CHIP	470	5%	1/10W
R3524	1-216-041-00	RES,CHIP	470	5%	1/10W
R3525	1-216-041-00	RES,CHIP	470	5%	1/10W
R3526	1-216-041-00	RES,CHIP	470	5%	1/10W
R3527	1-216-033-00	RES,CHIP	220	5%	1/10W
R3529	1-216-041-00	RES,CHIP	470	5%	1/10W
R3532	1-216-041-00	RES,CHIP	470	5%	1/10W
R3533	1-216-041-00	RES,CHIP	470	5%	1/10W
R3534	1-216-041-00	RES,CHIP	470	5%	1/10W
R3540	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3541	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3542	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3544	1-216-037-00	RES,CHIP	330	5%	1/10W
R3545	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3546	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3550	1-216-041-00	RES,CHIP	470	5%	1/10W
R3552	1-216-041-00	RES,CHIP	470	5%	1/10W
R3553	1-216-041-00	RES,CHIP	470	5%	1/10W
R3554	1-216-041-00	RES,CHIP	470	5%	1/10W
R3555	1-216-041-00	RES,CHIP	470	5%	1/10W
R3556	1-216-041-00	RES,CHIP	470	5%	1/10W
R3557	1-216-033-00	RES,CHIP	220	5%	1/10W
R3559	1-216-041-00	RES,CHIP	470	5%	1/10W
R3562	1-216-041-00	RES,CHIP	470	5%	1/10W
R3563	1-216-041-00	RES,CHIP	470	5%	1/10W
R3564	1-216-041-00	RES,CHIP	470	5%	1/10W

Ref.No.	Part No.	Description	Remark
		<SWITCH>	
S3500	1-692-453-11	SWITCH, KEY BOARD (LEFT)	
S3501	1-692-453-11	SWITCH, KEY BOARD (RIGHT)	
S3502	1-692-453-11	SWITCH, KEY BOARD (DOWN)	
S3503	1-692-453-11	SWITCH, KEY BOARD (UP)	
S3504	1-692-453-11	SWITCH, KEY BOARD (ENTER)	
S3505	1-692-453-11	SWITCH, KEY BOARD (MENU)	
S3506	1-692-453-11	SWITCH, KEY BOARD (INPUT)	
S3507	1-692-453-11	SWITCH, KEY BOARD (POWER)	
S3508	1-692-453-11	SWITCH, KEY BOARD (HELP)	
S3509	1-692-453-11	SWITCH, KEY BOARD (LIGHT)	
S3512	1-692-453-11	SWITCH, KEY BOARD (ALITO)	
S3513	1-692-453-11	SWITCH, KEY BOARD (VOL–)	
S3514	1-692-453-11	SWITCH, KEY BOARD (VOL+)	
S3515	1-692-453-11	SWITCH, KEY BOARD (RESET)	

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Ref.No.	Part No.	Description	Remark
	* A-1385-189-A	K COMPL **********************	
	* 4-032-770-81	HEAT SINK, V-OUT	
	7-682-648-09	SCREW +PS 3X8	
		<CAPACITOR>	
C2900	1-126-200-11	ELECT CHIP 10μF 20%	35V
C2901	1-164-505-11	CERAMIC CHIP 2.2μF	16V
C2902	1-128-401-11	ELECT CHIP 100μF 20%	25V
C2903	1-164-505-11	CERAMIC CHIP 2.2μF	16V
C2904	1-128-401-11	ELECT CHIP 100μF 20%	25V
C2905	1-128-401-11	ELECT CHIP 100μF 20%	25V
C2906	1-164-004-11	CERAMIC CHIP 0.1μF 10%	25V
C2907	1-164-004-11	CERAMIC CHIP 0.1μF 10%	25V
C2908	1-128-401-11	ELECT CHIP 100μF 20%	25V
		<CONNECTOR>	
CN2900	* 1-580-056-21	PIN, CONNECTOR (SMD) 3P	
CN2901	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P	
CN2903	* 1-580-055-21	PIN, CONNECTOR (SMD) 2P	
		<FILTER>	
FL2001	1-233-736-21	FILTER, EMI	
		<IC>	
IC2900	8-759-980-43	IC TDA2009A	
		<TRANSISTOR>	
Q2900	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2901	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R2900	1-216-075-00	RES,CHIP 12K 5%	1/10W
R2901	1-216-075-00	RES,CHIP 12K 5%	1/10W
R2902	1-216-097-91	RES,CHIP 100K 5%	1/10W
R2903	1-216-061-00	RES,CHIP 3.3K 5%	1/10W
R2904	1-216-041-00	RES,CHIP 470 5%	1/10W
R2905	1-216-643-11	METAL CHIP 470 0.50%	1/10W
R2906	1-216-651-11	METAL CHIP 1K 0.50%	1/10W
R2907	1-216-073-00	RES,CHIP 10K 5%	1/10W
R2908	1-216-021-00	RES,CHIP 68 5%	1/10W
R2909	1-216-059-00	RES,CHIP 2.7K 5%	1/10W
R2910	1-216-021-00	RES,CHIP 68 5%	1/10W
R2911	1-216-059-00	RES,CHIP 2.7K 5%	1/10W
R2912	1-249-385-11	CARBON 2.2 5%	1/4W F
R2913	1-249-385-11	CARBON 2.2 5%	1/4W F
R2914	1-216-637-11	METAL CHIP 270 0.50%	1/10W

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Ref.No.	Part No.	Description	Remark
	* A-1385-190-A	KS COMPL **********************	
		<CAPACITOR>	
C2950	1-107-682-11	CERAMIC CHIP 1μF 10%	16V
C2951	1-164-489-11	CERAMIC CHIP 0.22μF 10%	16V
C2952	1-163-023-00	CERAMIC CHIP 0.015μF 10%	50V
C2953	1-107-682-11	CERAMIC CHIP 1μF 10%	16V
C2954	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2955	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2956	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2957	1-107-682-11	CERAMIC CHIP 1μF 10%	16V
C2958	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2959	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2960	1-107-682-11	CERAMIC CHIP 1μF 10%	16V
C2961	1-164-004-11	CERAMIC CHIP 0.1μF 10%	25V
C2962	1-164-489-11	CERAMIC CHIP 0.22μF 10%	16V
C2963	1-117-681-11	ELECT CHIP 100μF 20%	16V
C2964	1-163-023-00	CERAMIC CHIP 0.015μF 10%	50V
C2965	1-126-200-11	ELECT CHIP 10μF 20%	35V
C2966	1-128-401-11	ELECT CHIP 100μF 20%	25V
C2967	1-128-401-11	ELECT CHIP 100μF 20%	25V
		<CONNECTOR>	
CN2951	* 1-766-376-11	PIN, CONNECTOR (1.5MM)(SMD) 9P	
CN2952	* 1-580-057-11	PIN, CONNECTOR (SMD) 4P	
		<IC>	
IC2950	8-759-524-84	IC TEA2025D-013TR	
IC2951	8-759-460-81	IC BA12FP-E2	
		<TRANSISTOR>	
Q2950	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2951	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<RESISTOR>	
R2950	1-216-665-11	METAL CHIP 3.9K 0.50%	1/10W
R2951	1-216-646-11	METAL CHIP 620 0.50%	1/10W
R2952	1-216-025-91	RES,CHIP 100 5%	1/10W
R2953	1-216-665-11	METAL CHIP 3.9K 0.50%	1/10W
R2954	1-216-025-91	RES,CHIP 100 5%	1/10W
R2955	1-216-075-00	RES,CHIP 12K 5%	1/10W
R2956	1-216-075-00	RES,CHIP 12K 5%	1/10W
R2957	1-216-041-00	RES,CHIP 470 5%	1/10W
R2958	1-216-061-00	RES,CHIP 3.3K 5%	1/10W
R2959	1-216-646-11	METAL CHIP 620 0.50%	1/10W
R2960	1-216-097-91	RES,CHIP 100K 5%	1/10W
R2961	1-216-073-00	RES,CHIP 10K 5%	1/10W

NR S NF Y

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*** A-1390-974-A NR MOUNT**

Ref.No.	Part No.	Description			Remark
		<CAPACITOR>			
C3700	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
		<CONNECTOR>			
CN3700	* 1-580-056-21	PIN, CONNECTOR (SMD) 3P			
		<IC>			
IC3700	8-749-012-17	IC RS-140-T			
		<RESISTOR>			
R3700	1-216-025-91	RES,CHIP	100	5%	1/10W
R3701	1-216-017-91	RES,CHIP	47	5%	1/10W

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*** A-1390-975-A S MOUNT**

Ref.No.	Part No.	Description			Remark
		<CONNECTOR>			
CN2020	* 1-580-056-21	PIN, CONNECTOR (SMD) 3P			
		<SWITCH>			
S2020	1-570-245-11	SWITCH, MICRO			
		<THERMISTOR>			
TH2020	1-808-656-11	THERMISTOR			

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*** 1-675-457-11 PWB, NF**

Ref.No.	Part No.	Description			Remark
		<CAPACITOR>			
C3600	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
		<CONNECTOR>			
CN3600	1-691-550-11	PIN, CONNECTOR (1.5MM)(SMD) 3P			
		<IC>			
IC3600	8-749-012-17	IC RS-140-T			
		<RESISTOR>			
R3600	1-216-025-91	RES,CHIP	100	5%	1/10W
R3601	1-216-017-91	RES,CHIP	47	5%	1/10W

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*** A-1394-958-A Y COMPL**
*** 4-073-897-01 GUIDE, PWB**

Ref.No.	Part No.	Description			Remark
		<CAPACITOR>			
C3001	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C3006	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3007	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3008	1-126-395-11	ELECT CHIP	22µF	20%	16V
C3009	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C3012	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3013	1-126-395-11	ELECT CHIP	22µF	20%	16V
C3014	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C3200	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3202	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C3203	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3204	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C3205	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3206	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3207	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3208	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3209	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3210	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3211	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C3212	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3213	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C3214	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3215	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C3216	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3217	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3218	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3219	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3220	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3301	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3302	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3303	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3304	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3305	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3306	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3307	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3308	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3309	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3310	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3311	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C3312	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3313	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3314	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3315	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3316	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3317	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3318	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3319	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3320	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3321	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C3322	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C3323	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3324	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3325	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3326	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C3327	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3328	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3330	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3332	1-117-720-11	CERAMIC CHIP	4.7µF		10V
C3334	1-117-720-11	CERAMIC CHIP	4.7µF		10V
C3401	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

Ref.No.	Part No.	Description			Remark
C3402	1-125-817-11	CERAMIC CHIP	10µF	10%	6.3V
C3403	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
	<CONNECTOR>				
CN3000	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P			
CN3001	* 1-764-007-11	PIN, CONNECTOR (SMD) 12P			
CN3002	* 1-580-057-11	PIN, CONNECTOR (SMD) 4P			
CN3003	* 1-580-756-21	PIN, CONNECTOR (SMD) 7P			
CN3005	* 1-760-388-11	CONNECTOR PIN (SMD) 9 PIN			
CN3010	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P			
	<DIODE>				
D3200	8-719-914-43	DIODE DAN202K			
D3201	8-719-914-43	DIODE DAN202K			
D3301	8-719-158-19	DIODE RD6.2SB			
D3302	8-719-158-19	DIODE RD6.2SB			
D3303	8-719-158-19	DIODE RD6.2SB			
D3304	8-719-158-19	DIODE RD6.2SB			
D3305	8-719-158-19	DIODE RD6.2SB			
D3306	8-719-158-19	DIODE RD6.2SB			
D3307	8-719-158-19	DIODE RD6.2SB			
D3308	8-719-158-19	DIODE RD6.2SB			
D3309	8-719-158-19	DIODE RD6.2SB			
D3310	8-719-158-19	DIODE RD6.2SB			
D3311	8-719-158-19	DIODE RD6.2SB			
D3312	8-719-158-19	DIODE RD6.2SB			
D3313	8-719-158-19	DIODE RD6.2SB			
D3314	8-719-158-19	DIODE RD6.2SB			
D3315	8-719-158-19	DIODE RD6.2SB			
D3316	8-719-158-19	DIODE RD6.2SB			
D3317	8-719-914-43	DIODE DAN202K			
D3318	8-719-914-43	DIODE DAN202K			
	<FERRITE BEAD>				
FB3200	1-414-234-22	INDUCTOR CHIP	0µH		
FB3201	1-414-234-22	INDUCTOR CHIP	0µH		
	<FILTER>				
FL3000	1-239-899-21	FILTER, CHIP EMI			
FL3001	1-239-899-21	FILTER, CHIP EMI			
FL3002	1-239-899-21	FILTER, CHIP EMI			
	<IC>				
IC3002	8-759-082-58	IC TC7W08FU			
IC3003	8-759-058-58	IC TC7S04FU(TE85R)			
IC3004	8-759-460-72	IC BA033FP-E2			
IC3007	8-759-157-17	IC PQ05SZ1U			
IC3200	8-759-082-58	IC TC7W08FU			
IC3201	8-759-582-91	IC S-80842ANNP-ED6-T2			
IC3202	8-759-544-01	IC S-80828ANNP-EDR-T2			
IC3203	8-759-492-55	IC M24C64-WMN6T			
IC3204	8-759-648-10	IC HD64F2633TE			
IC3301	8-759-653-02	IC IRMF			
IC3302	8-759-242-78	IC TC7W02F			
IC3303	8-759-655-55	IC UPD72012GB-003-3B4			
IC3304	8-759-655-54	IC ST72T631L4M1			
IC3401	8-759-082-60	IC TC7S66FU			
IC3402	8-759-277-63	IC TC7W14FU(TE12R)			
	<TRANSISTOR>				
Q3000	8-729-202-38	TRANSISTOR 2SC3326N-A			
Q3001	8-729-202-38	TRANSISTOR 2SC3326N-A			

Ref.No.	Part No.	Description			Remark
Q3002	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3003	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3200	8-729-101-07	TRANSISTOR 2SB798-DL			
Q3201	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3301	8-729-202-38	TRANSISTOR 2SC3326N-A			
Q3302	8-729-202-38	TRANSISTOR 2SC3326N-A			
Q3303	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3306	8-729-216-22	TRANSISTOR 2SA1162-G			
Q3307	1-801-806-11	TRANSISTOR DTC144EKA-T146			
Q3310	1-801-806-11	TRANSISTOR DTC144EKA-T146			
	<RESISTOR>				
R3002	1-216-025-91	RES,CHIP	100	5%	1/10W
R3004	1-216-025-91	RES,CHIP	100	5%	1/10W
R3005	1-216-089-91	RES,CHIP	47K	5%	1/10W
R3007	1-216-025-91	RES,CHIP	100	5%	1/10W
R3008	1-216-025-91	RES,CHIP	100	5%	1/10W
R3009	1-216-089-91	RES,CHIP	47K	5%	1/10W
R3012	1-216-025-91	RES,CHIP	100	5%	1/10W
R3014	1-216-025-91	RES,CHIP	100	5%	1/10W
R3015	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3016	1-216-025-91	RES,CHIP	100	5%	1/10W
R3017	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3019	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3020	1-216-025-91	RES,CHIP	100	5%	1/10W
R3021	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3030	1-216-017-91	RES,CHIP	47	5%	1/10W
R3031	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3032	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3033	1-216-033-00	RES,CHIP	220	5%	1/10W
R3201	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3202	1-216-085-00	RES,CHIP	33K	5%	1/10W
R3203	1-216-085-00	RES,CHIP	33K	5%	1/10W
R3204	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3205	1-216-089-91	RES,CHIP	47K	5%	1/10W
R3206	1-216-634-11	METAL CHIP	200	0.50%	1/10W
R3207	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3208	1-216-025-91	RES,CHIP	100	5%	1/10W
R3211	1-216-025-91	RES,CHIP	100	5%	1/10W
R3212	1-216-025-91	RES,CHIP	100	5%	1/10W
R3213	1-216-025-91	RES,CHIP	100	5%	1/10W
R3214	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R3215	1-216-025-91	RES,CHIP	100	5%	1/10W
R3216	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3217	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3220	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3221	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3222	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3223	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3224	1-216-295-91	SHORT	0		
R3227	1-216-025-91	RES,CHIP	100	5%	1/10W
R3228	1-216-025-91	RES,CHIP	100	5%	1/10W
R3231	1-216-025-91	RES,CHIP	100	5%	1/10W
R3232	1-216-025-91	RES,CHIP	100	5%	1/10W
R3234	1-216-025-91	RES,CHIP	100	5%	1/10W
R3235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3237	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3239	1-216-025-91	RES,CHIP	100	5%	1/10W
R3243	1-216-025-91	RES,CHIP	100	5%	1/10W
R3245	1-216-025-91	RES,CHIP	100	5%	1/10W
R3246	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3247	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3248	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3249	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3250	1-216-073-00	RES,CHIP	10K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R3251	1-216-025-91	RES,CHIP	100	5%	1/10W
R3252	1-216-025-91	RES,CHIP	100	5%	1/10W
R3253	1-216-025-91	RES,CHIP	100	5%	1/10W
R3254	1-216-025-91	RES,CHIP	100	5%	1/10W
R3255	1-216-025-91	RES,CHIP	100	5%	1/10W
R3256	1-216-025-91	RES,CHIP	100	5%	1/10W
R3257	1-216-025-91	RES,CHIP	100	5%	1/10W
R3258	1-216-025-91	RES,CHIP	100	5%	1/10W
R3259	1-216-025-91	RES,CHIP	100	5%	1/10W
R3260	1-216-025-91	RES,CHIP	100	5%	1/10W
R3261	1-216-025-91	RES,CHIP	100	5%	1/10W
R3262	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3263	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3264	1-216-025-91	RES,CHIP	100	5%	1/10W
R3265	1-216-025-91	RES,CHIP	100	5%	1/10W
R3267	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3268	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3271	1-216-025-91	RES,CHIP	100	5%	1/10W
R3274	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3275	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3276	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R3277	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R3301	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3302	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3303	1-216-037-00	RES,CHIP	330	5%	1/10W
R3304	1-216-037-00	RES,CHIP	330	5%	1/10W
R3305	1-216-037-00	RES,CHIP	330	5%	1/10W
R3306	1-216-037-00	RES,CHIP	330	5%	1/10W
R3307	1-216-025-91	RES,CHIP	100	5%	1/10W
R3308	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3309	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3310	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3311	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3312	1-216-025-91	RES,CHIP	100	5%	1/10W
R3313	1-216-025-91	RES,CHIP	100	5%	1/10W
R3314	1-216-025-91	RES,CHIP	100	5%	1/10W
R3315	1-216-295-91	SHORT	0		
R3316	1-216-295-91	SHORT	0		
R3317	1-216-025-91	RES,CHIP	100	5%	1/10W
R3318	1-216-025-91	RES,CHIP	100	5%	1/10W
R3319	1-216-017-91	RES,CHIP	47	5%	1/10W
R3320	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3321	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3322	1-216-025-91	RES,CHIP	100	5%	1/10W
R3323	1-216-025-91	RES,CHIP	100	5%	1/10W
R3324	1-216-025-91	RES,CHIP	100	5%	1/10W
R3325	1-216-025-91	RES,CHIP	100	5%	1/10W
R3326	1-216-025-91	RES,CHIP	100	5%	1/10W
R3327	1-216-025-91	RES,CHIP	100	5%	1/10W
R3328	1-216-025-91	RES,CHIP	100	5%	1/10W
R3329	1-216-025-91	RES,CHIP	100	5%	1/10W
R3330	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3331	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3332	1-216-025-91	RES,CHIP	100	5%	1/10W
R3333	1-216-025-91	RES,CHIP	100	5%	1/10W
R3334	1-216-025-91	RES,CHIP	100	5%	1/10W
R3335	1-216-025-91	RES,CHIP	100	5%	1/10W
R3336	1-216-025-91	RES,CHIP	100	5%	1/10W
R3337	1-216-025-91	RES,CHIP	100	5%	1/10W
R3338	1-216-025-91	RES,CHIP	100	5%	1/10W
R3339	1-216-025-91	RES,CHIP	100	5%	1/10W
R3340	1-216-025-91	RES,CHIP	100	5%	1/10W
R3341	1-216-001-00	RES,CHIP	10	5%	1/10W
R3342	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R3343	1-216-121-91	RES,CHIP	1M	5%	1/10W
R3344	1-216-053-00	RES,CHIP	1.5K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R3345	1-216-005-00	RES,CHIP	15	5%	1/10W
R3346	1-216-005-00	RES,CHIP	15	5%	1/10W
R3347	1-216-005-00	RES,CHIP	15	5%	1/10W
R3348	1-216-005-00	RES,CHIP	15	5%	1/10W
R3349	1-216-005-00	RES,CHIP	15	5%	1/10W
R3350	1-216-005-00	RES,CHIP	15	5%	1/10W
R3351	1-216-005-00	RES,CHIP	15	5%	1/10W
R3352	1-216-005-00	RES,CHIP	15	5%	1/10W
R3353	1-216-005-00	RES,CHIP	15	5%	1/10W
R3354	1-216-005-00	RES,CHIP	15	5%	1/10W
R3355	1-216-005-00	RES,CHIP	15	5%	1/10W
R3356	1-216-005-00	RES,CHIP	15	5%	1/10W
R3357	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3358	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3359	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3360	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3361	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3362	1-216-077-91	RES,CHIP	15K	5%	1/10W
R3363	1-216-025-91	RES,CHIP	100	5%	1/10W
R3364	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R3365	1-218-769-11	METAL CHIP	510K	0.50%	1/10W
R3366	1-216-097-91	RES,CHIP	100K	5%	1/10W
R3367	1-216-097-91	RES,CHIP	100K	5%	1/10W
R3368	1-218-769-11	METAL CHIP	510K	0.50%	1/10W
R3369	1-216-295-91	SHORT	0		
R3370	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3371	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R3372	1-216-025-91	RES,CHIP	100	5%	1/10W
R3378	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R3382	1-216-295-91	SHORT	0		
R3383	1-216-295-91	SHORT	0		
R3384	1-216-025-91	RES,CHIP	100	5%	1/10W
R3386	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3389	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3390	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3401	1-216-295-91	SHORT	0		
R3402	1-216-295-91	SHORT	0		
R3403	1-216-025-91	RES,CHIP	100	5%	1/10W
R3404	1-216-025-91	RES,CHIP	100	5%	1/10W
R3405	1-216-103-00	RES,CHIP	180K	5%	1/10W
R3406	1-216-073-00	RES,CHIP	10K	5%	1/10W
	<NETWORK>				
RB3003	1-233-576-11	RES, CHIP NETWORK 100			
	<TEST PIN>				
TP3000	1-535-757-11	CHIP, CHECKER			
TP3001	1-535-757-11	CHIP, CHECKER			
TP3002	1-535-757-11	CHIP, CHECKER			
TP3003	1-535-757-11	CHIP, CHECKER			
TP3004	1-535-757-11	CHIP, CHECKER			
TP3005	1-535-757-11	CHIP, CHECKER			
TP3006	1-535-757-11	CHIP, CHECKER			
TP3007	1-535-757-11	CHIP, CHECKER			
TP3008	1-535-757-11	CHIP, CHECKER			
TP3009	1-535-757-11	CHIP, CHECKER			
TP3200	1-535-757-11	CHIP, CHECKER			
TP3201	1-535-757-11	CHIP, CHECKER			
TP3202	1-535-757-11	CHIP, CHECKER			
TP3203	1-535-757-11	CHIP, CHECKER			
TP3204	1-535-757-11	CHIP, CHECKER			
TP3205	1-535-757-11	CHIP, CHECKER			
TP3206	1-535-757-11	CHIP, CHECKER			
TP3301	1-535-757-11	CHIP, CHECKER			

Ref.No.	Part No.	Description	Remark
TP3302	1-535-757-11	CHIP, CHECKER	
TP3303	1-535-757-11	CHIP, CHECKER	
TP3304	1-535-757-11	CHIP, CHECKER	
TP3305	1-535-757-11	CHIP, CHECKER	
TP3306	1-535-757-11	CHIP, CHECKER	
TP3307	1-535-757-11	CHIP, CHECKER	
TP3308	1-535-757-11	CHIP, CHECKER	
TP3309	1-535-757-11	CHIP, CHECKER	
	<CRYSTAL>		
X3200	1-781-659-21	VIBRATOR, CRYSTAL (12.288 MHz)	
X3301	1-767-340-11	VIBRATOR, CRYSTAL (4.0 MHz)	
X3302	1-781-163-11	VIBRATOR, OSCILLATOR (24.0 MHz)	

****

MISCELLANOUS
****

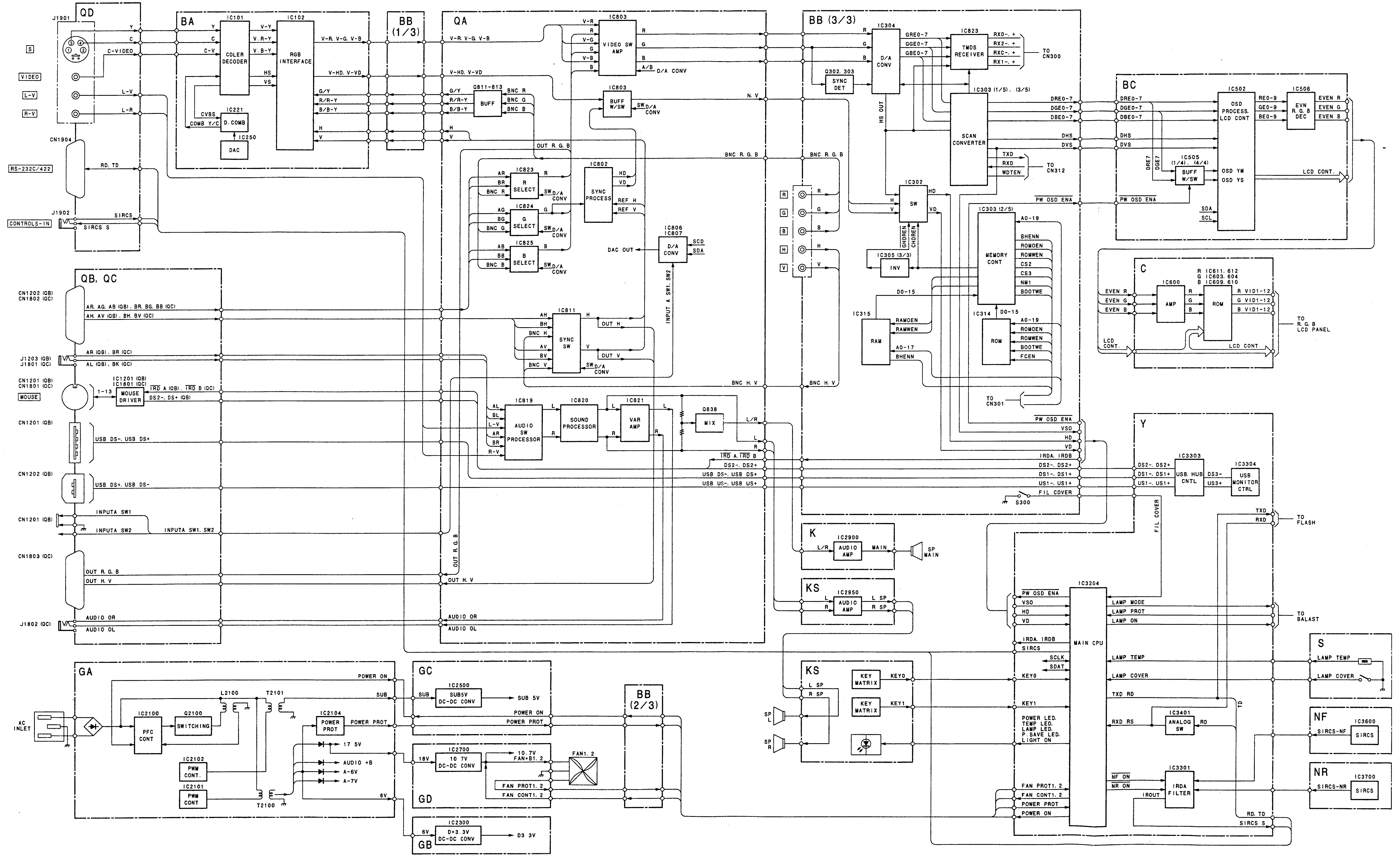
Ref.No.	Part No.	Description	Remark
	1-529-499-11	SPEAKER (4.5CM)	
	1-763-422-11	FAN, DC	
	1-758-440-11	OPTICAL UNIT	
	⚠1-468-445-11	POWER BLOCK	
	1-500-278-11	FILTER, CLAMP (FERRITE CORE)	
	1-505-600-11	SPEAKER (065W004)	
	⚠1-526-813-12	INLET, AC (3P)	
	1-763-417-11	FAN, DC	
	1-900-249-68	CONNECTOR ASSY, FUSE 2P	

****

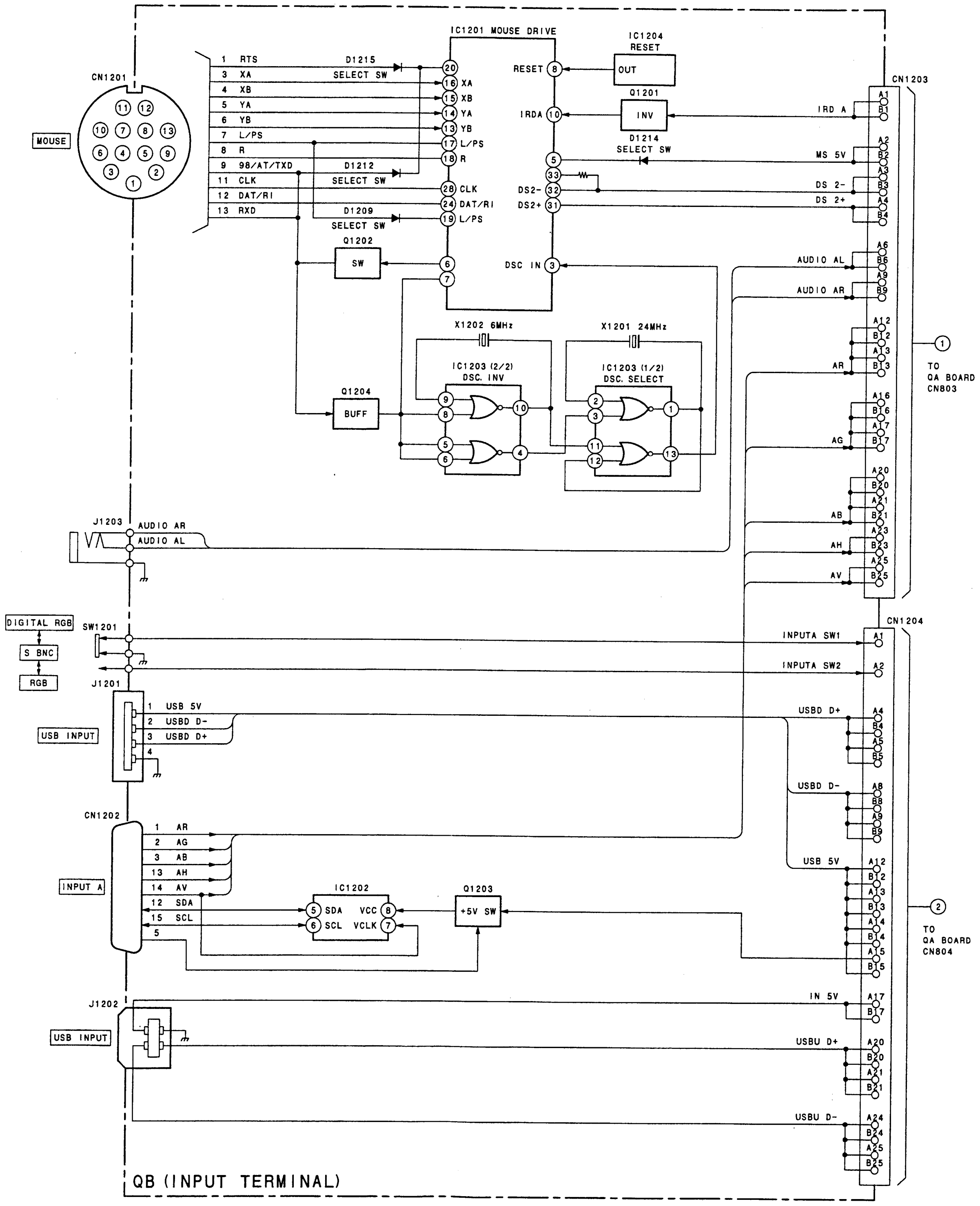
ACCESSORIES
****

Ref.No.	Part No.	Description	Remark
	1-575-334-11	CORD, CONNECTION	
	⚠1-534-827-14	CORD, POWER (7A/125V)	
	⚠1-777-649-11	CORD, POWER (10A/250V)	
	⚠1-782-929-11	CORD, POWER SUPPLY (BS 3P) (10A/250V)	
	1-790-081-21	CABLE, USB	
	4-073-737-01	FILTER	
	4-073-984-11	OPERATING INSTRUCTIONS (ENGLISH/ FRANCH/SPANISH)	
	4-073-984-21	OPERATING INSTRUCTIONS (GERMAN/ ITALIAN)	
	4-073-987-01	INSTRUCTION MANUAL FOR DEALERS (JAPANESE/ENGLISH/FRENCH/ SPANISH/GERMAN/ITALIAN/CHINESE)	
	4-073-992-01	QUICK REFERENCE CARD (JAPANESE/ ENGLISH/FRENCH/SPANISH/GERMAN/ ITALIAN/CHINESE)	
	9-885-000-17	COVER, BATTERY (RM-PJM610)	

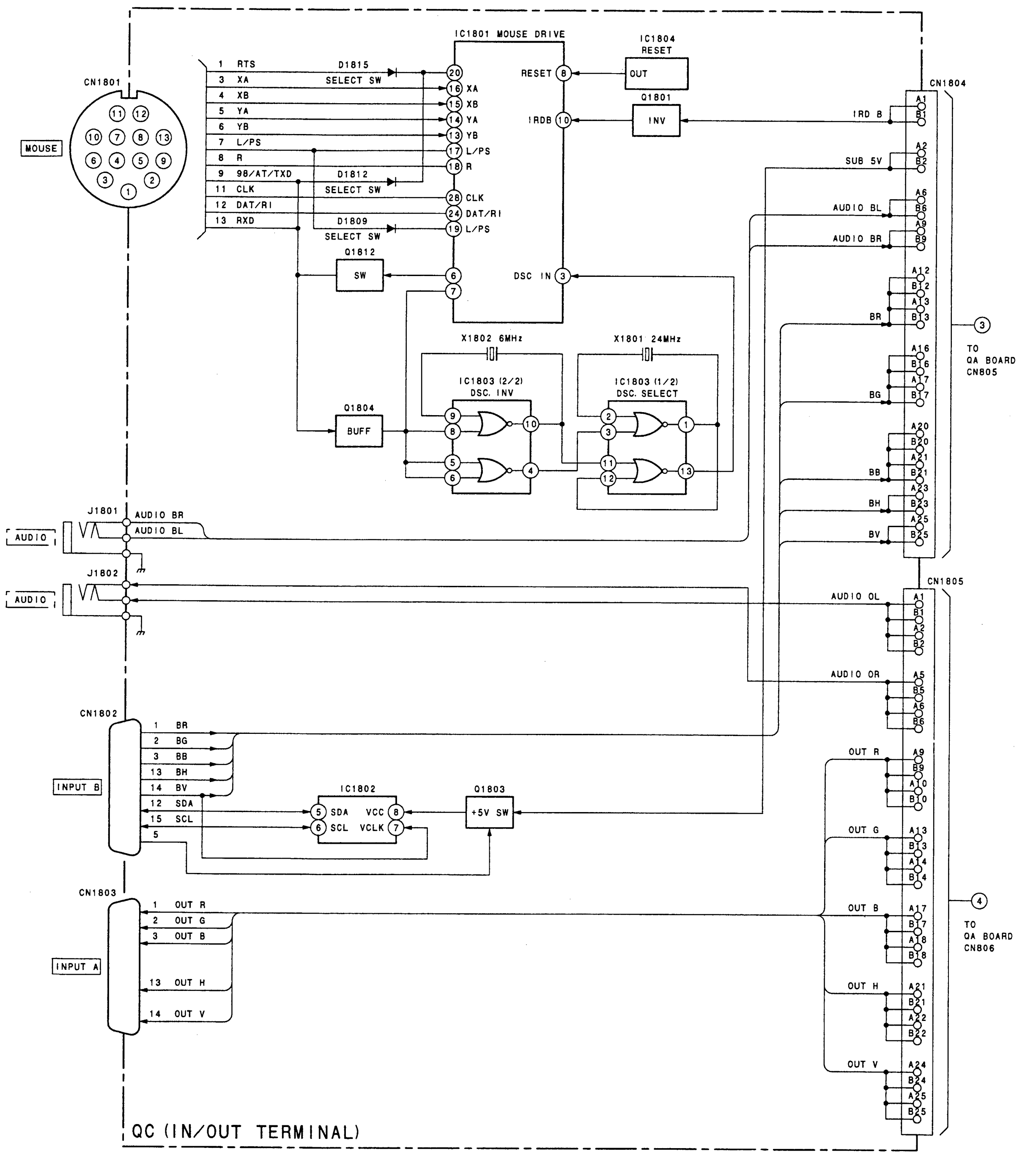
Section 8
Block Diagrams


QD
J1901
S
VIDEO
L-V
R-V
CN1904
RS-232C/422
J1902
CONTROLS-IN
Y
C
C-VIDEO
L-V
L-R
RD, TD
SIRCS
SIRCS S
BA
IC101
COLER DECODER
IC102
RGB INTERFACE
IC221
D.COMB
IC250
DAC
CVBS
COMB Y/C
V-Y
V-R-Y
V-B-Y
HS
VS
V-R, V-G, V-B
V-HD, V-VD
G/Y
R/R-Y
B/B-Y
H
V
BB (1/3)
QA
IC803
VIDEO SW AMP
V-R
V-G
V-B
R
G
B
A/B
D/A CONV
BUFF W/SW
Q811-813
BUFF
BNC R
BNC G
BNC B
OUT R, G, B
IC823
R SELECT
IC824
G SELECT
IC825
B SELECT
AR
BR
AG
BG
AB
BB
SW
IC802
SYNC PROCESS
HD
VD
REF H
REF V
IC806
IC807
D/A CONV
DAC OUT
SCD
SDA
INPUT A SW1, SW2
IC811
SYNC SW
AH
BH
BNC H
AV
BV
BNC V
OUT H
OUT V
BNC H, V
IC819
AUDIO SW PROCESSOR
IC820
SOUND PROCESSOR
IC821
VAR AMP
Q838
MIX
AL
BL
L-V
R-V
L/R
IRD A, IRD B
DS2-, DS2+
USB DS-, USB DS+
USB US-, USB US+
N. V
BNC R, G, B
QB, QC
CN1202 (QB)
CN1802 (QC)
AR, AG, AB (QB), BR, BG, BB (QC)
AH, AV (QB), BH, BV (QC)
J1203 (QB)
J1801 (QC)
AR (QB), BR (QC)
AL (QB), BK (QC)
CN1201 (QB)
CN1801 (QC)
MOUSE
IC1201 (QB)
IC1801 (QC)
MOUSE DRIVER
1-13
IRD A (QB), IRD B (QC)
DS2-, DS+ (QB)
CN1201 (QB)
USB DS-, USB DS+
CN1202 (QB)
USB DS+, USB DS-
CN1201 (QB)
INPUTA SW1
INPUTA SW2
INPUTA SW1, SW2
CN1803 (QC)
OUT R, G, B
OUT H, V
J1802 (QC)
AUDIO OR
AUDIO OL
BB (3/3)
IC304
D/A CONV
GRE0-7
GGE0-7
GBE0-7
IC823
TMDS RECEIVER
RX0-, +
RX2-, +
RXC-, +
RX1-, +
TO CN300
Q302, 303
SYNC DET
IC303 (1/5), (3/5)
SCAN CONVERTER
TXD
RXD
WDTEN
TO CN312
DRE0-7
DGE0-7
DBE0-7
DHS
DVS
HS OUT
IC302
SW
GHDREN
GHDREN
IC305 (3/3)
INV
IC303 (2/5)
MEMORY CONT
A0-19
BHENN
ROMOEN
ROMWEN
CS2
CS3
NM1
BOOTWE
IC315
RAM
D0-15
RAMOEN
RAMWEN
A0-17
BHENN
IC314
ROM
D0-15
FCEN
TO CN301
PW OSD ENA
VSO
HD
VD
IRDA, IRDB
DS2-, DS2+
DS1-, DS1+
US1-, US1+
FIL COVER
S300
R
G
B
H
V
BC
IC505 (1/4), (4/4)
BUFF W/SW
DRE7
DGE7
IC502
OSD PROCESS, LCD CONT
OSD YM
OSD YS
SDA
SCL
RE0-9
GE0-9
BE0-9
IC506
EVN R, G, B DEC
EVEN R
EVEN G
EVEN B
LCD CONT.
C
IC600
AMP
R IC611, 612
G IC603, 604
B IC609, 610
ROM
R VID1-12
G VID1-12
B VID1-12
TO R, G, B LCD PANEL
LCD CONT.
Y
IC3303
USB HUB CNTL
DS3-
US3+
IC3304
USB MONITOR CTRL
TXD
RXD
TO FLASH
FIL COVER
K
IC2900
AUDIO AMP
MAIN
SP MAIN
KS
IC2950
AUDIO AMP
L SP
R SP
IC3204
MAIN CPU
LAMP MODE
LAMP PROT
LAMP ON
TO BALAST
SCLK
SDAT
KEY0
KEY1
POWER LED, TEMP LED, LAMP LED, P.SAVE LED, LIGHT ON
LAMP TEMP
LAMP COVER
TXD RD
RXD RS
IC3401
ANALOG SW
RD
TD
NF ON
NR ON
IC3301
IRDA FILTER
IROUT
FAN PROT1, 2
FAN CONT1, 2
POWER PROT
POWER ON
RD, TD
SIRCS S
KS
KEY MATRIX
KEY MATRIX
SP L
SP R
S
NF
IC3600
SIRCS-NF
SIRCS
NR
IC3700
SIRCS-NR
SIRCS
GA
AC INLET
IC2100
PFC CONT
Q2100
SWITCHING
L2100
T2101
T2100
IC2102
PWM CONT.
IC2101
PWM CONT
IC2104
POWER PROT
POWER ON
SUB
POWER PROT
17 5V
AUDIO +B
A-6V
A-7V
6V
GC
IC2500
SUB5V DC-DC CONV
SUB 5V
POWER ON
POWER PROT
IC2700
10 7V DC-DC CONV
18V
10.7V FAN+B1, 2
FAN1, 2
FAN PROT1, 2
FAN CONT1, 2
GD
IC2300
D+3.3V DC-DC CONV
D3 3V
GB
BB (2/3)
1
2
3
4
5
A
B
C
D
E
F
G
H

OVERALL BLOCK

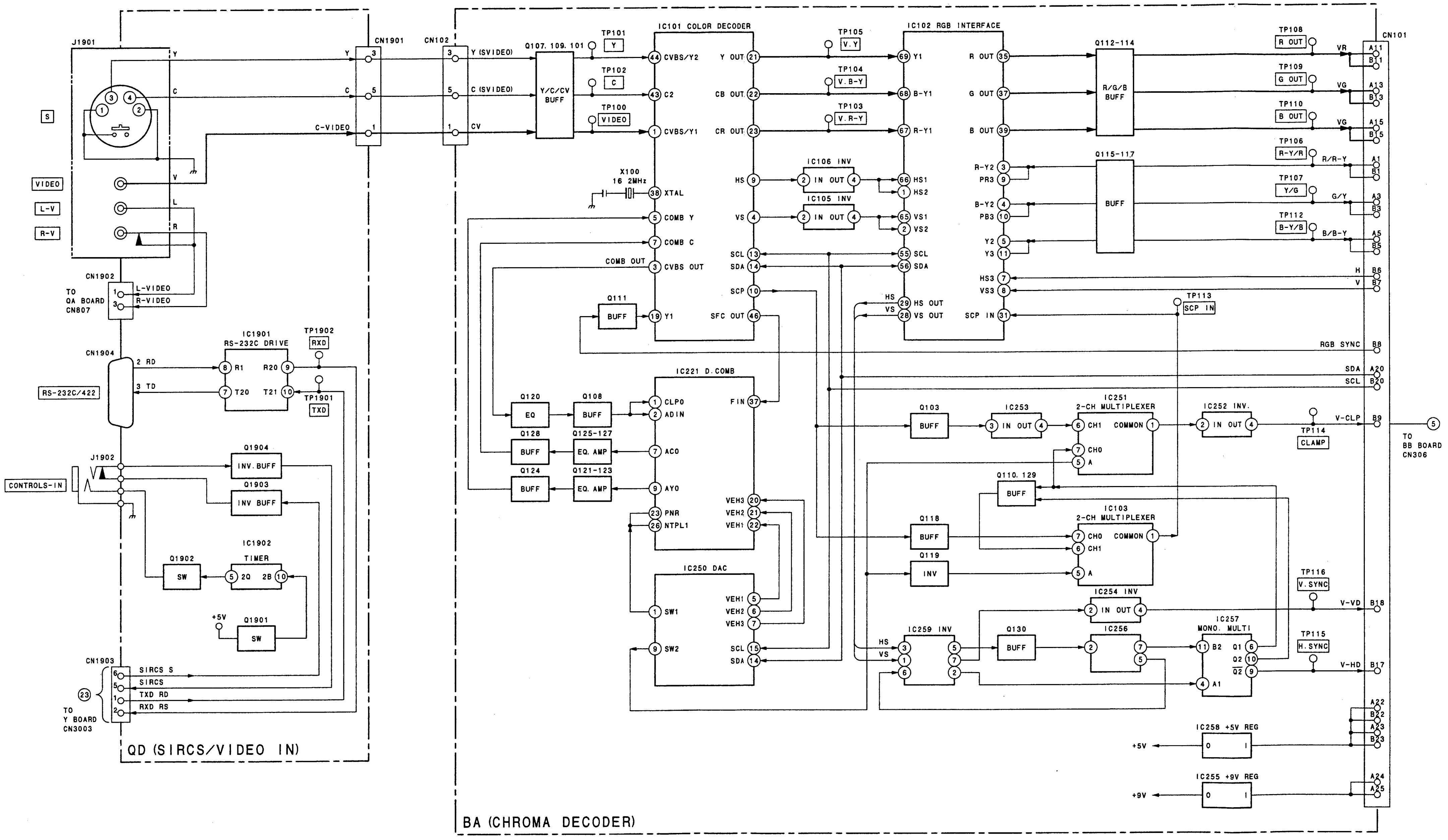

CN1201
MOUSE
1 RTS
3 XA
4 XB
5 YA
6 YB
7 L/PS
8 R
9 98/AT/TXD
11 CLK
12 DAT/RI
13 RXD
D1215 SELECT SW
D1212 SELECT SW
D1209 SELECT SW
IC1201 MOUSE DRIVE
RESET
IRDA
DS2-
DS2+
DSC IN
IC1204 RESET
OUT
Q1201 INV
D1214 SELECT SW
Q1202 SW
X1202 6MHz
X1201 24MHz
IC1203 (2/2) DSC. INV
IC1203 (1/2) DSC. SELECT
Q1204 BUFF
CN1203
IRD A
MS 5V
DS 2-
DS 2+
AUDIO AL
AUDIO AR
AR
AG
AB
AH
AV
TO QA BOARD CN803
J1203
AUDIO AR
AUDIO AL
DIGITAL RGB
S BNC
RGB
SW1201
J1201
USB INPUT
1 USB 5V
2 USBD D-
3 USBD D+
CN1204
INPUTA SW1
INPUTA SW2
USBD D+
USBD D-
USB 5V
CN1202
INPUT A
1 AR
2 AG
3 AB
13 AH
14 AV
12 SDA
15 SCL
IC1202
SDA
SCL
VCC
VCLK
Q1203 +5V SW
TO QA BOARD CN804
J1202
USB INPUT
IN 5V
USBU D+
USBU D-
QB (INPUT TERMINAL)

QB BLOCK

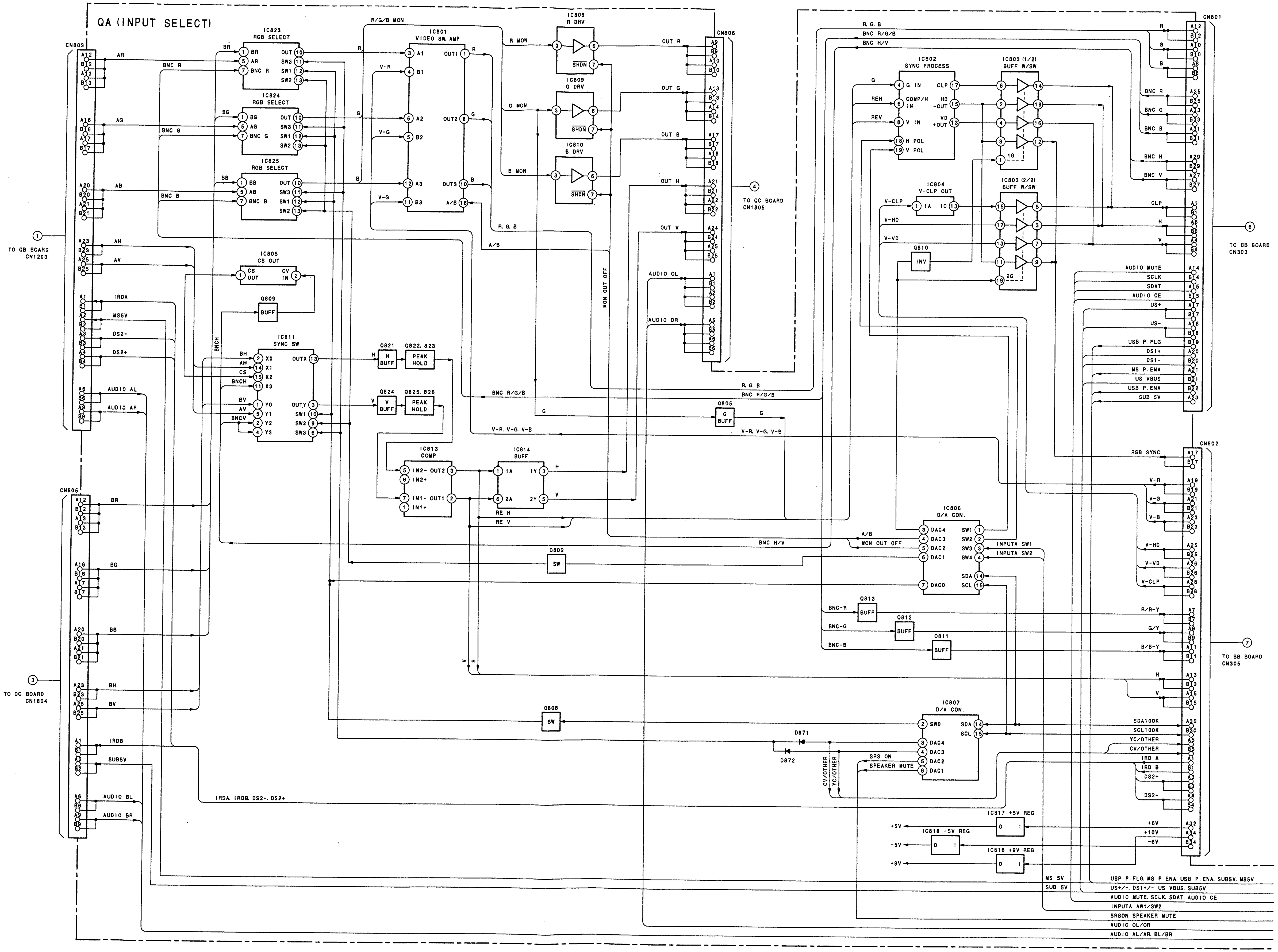

CN1801
MOUSE
1 RTS
3 XA
4 XB
5 YA
6 YB
7 L/PS
8 R
9 98/AT/TXD
11 CLK
12 DAT/RI
13 RXD
D1815 SELECT SW
D1812 SELECT SW
D1809 SELECT SW
IC1801 MOUSE DRIVE
RESET
IRDB
DSC IN
IC1804 RESET
OUT
Q1801 INV
Q1812 SW
X1802 6MHz
X1801 24MHz
IC1803 (2/2) DSC. INV
IC1803 (1/2) DSC. SELECT
Q1804 BUFF
CN1804
IRD B
SUB 5V
AUDIO BL
AUDIO BR
BR
BG
BB
BH
BV
TO QA BOARD CN805
J1801
AUDIO
AUDIO BR
AUDIO BL
J1802
CN1805
AUDIO OL
AUDIO OR
CN1802
INPUT B
1 BR
2 BG
3 BB
13 BH
14 BV
12 SDA
15 SCL
IC1802
Q1803 +5V SW
CN1803
INPUT A
1 OUT R
2 OUT G
3 OUT B
13 OUT H
14 OUT V
OUT R
OUT G
OUT B
OUT H
OUT V
TO QA BOARD CN806
QC (IN/OUT TERMINAL)

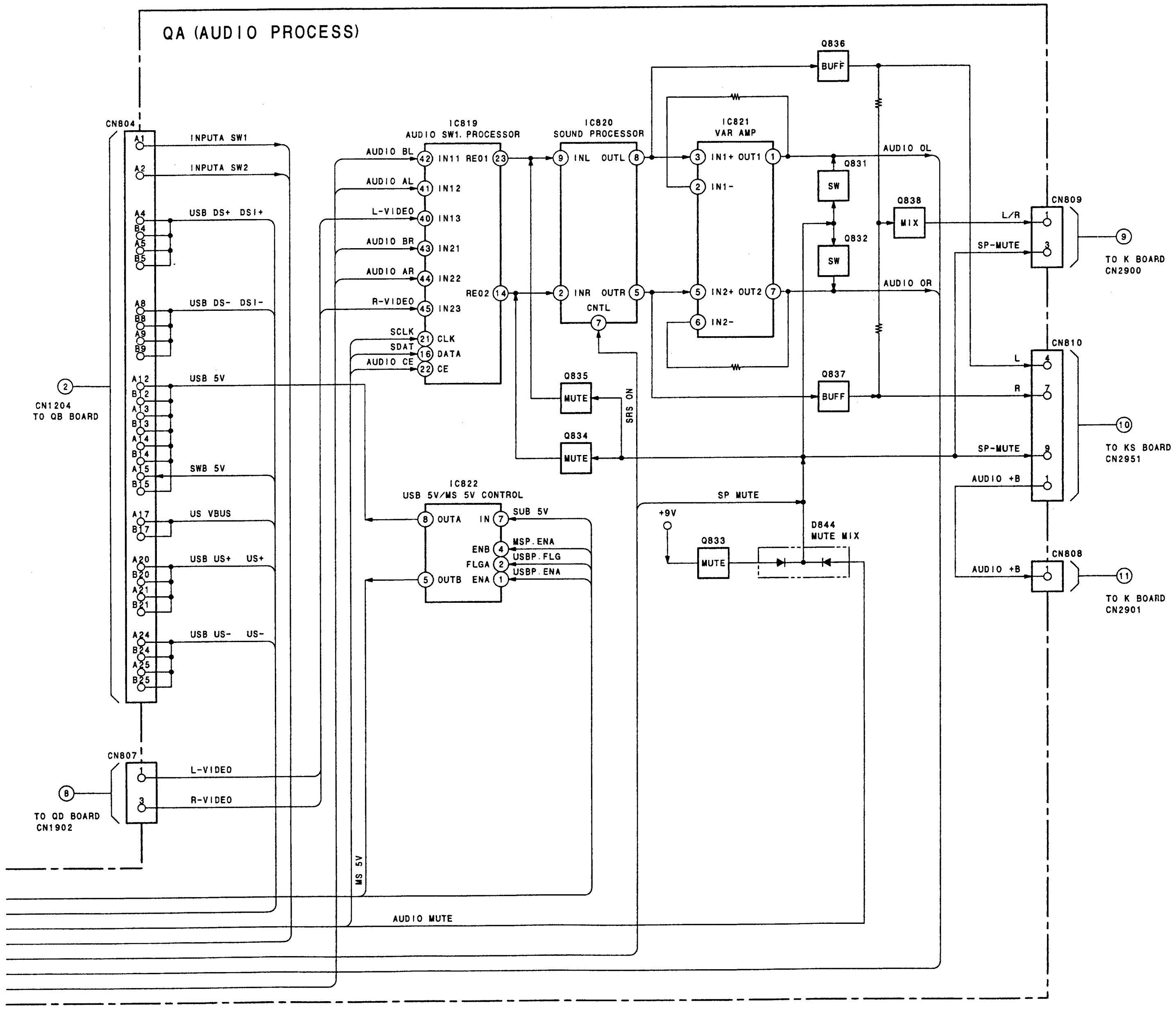
QC BLOCK

BA, QD BA, QD


J1901
S
VIDEO
L-V
R-V
Y
C
C-VIDEO
V
L
R
CN1902
TO
QA BOARD
CN807
L-VIDEO
R-VIDEO
CN1904
RS-232C/422
2 RD
3 TD
IC1901
RS-232C DRIVE
R1
R20
T20
T21
TP1902
RXD
TP1901
TXD
J1902
CONTROLS-IN
Q1904
INV. BUFF
Q1903
INV BUFF
IC1902
TIMER
2Q
2B
Q1902
SW
+5V
Q1901
SW
CN1903
23
TO
Y BOARD
CN3003
SIRCS S
SIRCS
TXD RD
RXD RS
QD (SIRCS/VIDEO IN)
CN1901
CN102
Y (SVIDEO)
C (SVIDEO)
CV
Q107, 109, 101
Y/C/CV
BUFF
TP101
Y
TP102
C
TP100
VIDEO
X100
16 2MHz
IC101 COLOR DECODER
CVBS/Y2
C2
CVBS/Y1
XTAL
COMB Y
COMB C
COMB OUT
CVBS OUT
Y1
Y OUT
CB OUT
CR OUT
HS
VS
SCL
SDA
SCP
SFC OUT
Q111
BUFF
TP105
V.Y
TP104
V.B-Y
TP103
V.R-Y
IC106 INV
IC105 INV
IN OUT
IC102 RGB INTERFACE
Y1
B-Y1
R-Y1
HS1
HS2
VS1
VS2
SCL
SDA
HS OUT
VS OUT
R OUT
G OUT
B OUT
R-Y2
PR3
B-Y2
PB3
Y2
Y3
HS3
VS3
SCP IN
IC221 D.COMB
CLPO
ADIN
ACO
AYO
PNR
NTPL1
FIN
VEH3
VEH2
VEH1
Q120
EQ
Q108
BUFF
Q128
BUFF
Q125-127
EQ. AMP
Q124
BUFF
Q121-123
EQ. AMP
IC250 DAC
SW1
SW2
VEH1
VEH2
VEH3
SCL
SDA
Q112-114
R/G/B
BUFF
Q115-117
BUFF
TP108
R OUT
TP109
G OUT
TP110
B OUT
TP106
R-Y/R
TP107
Y/G
TP112
B-Y/B
VR
VG
VG
R/R-Y
G/Y
B/B-Y
H
V
TP113
SCP IN
RGB SYNC
SDA
SCL
Q103
BUFF
IC253
IC251
2-CH MULTIPLEXER
CH1
COMMON
CH0
A
IC252 INV.
V-CLP
TP114
CLAMP
Q110, 129
BUFF
Q118
BUFF
IC103
2-CH MULTIPLEXER
CH0
COMMON
CH1
A
Q119
INV
IC254 INV
TP116
V.SYNC
V-VD
IC259 INV
HS
VS
Q130
BUFF
IC256
IC257
MONO. MULTI
B2
Q1
Q2
$\overline{Q2}$
A1
TP115
H.SYNC
V-HD
IC258 +5V REG
+5V
IC255 +9V REG
+9V
CN101
A11
B11
A13
B13
A15
B15
A1
B1
A3
B3
A5
B5
B6
B7
B8
A20
B20
B9
B18
B17
A22
B22
A23
B23
A24
A25
5
TO
BB BOARD
CN306
BA (CHROMA DECODER)

BA, QD BLOCK


QA (INPUT SELECT)
CN803
CN805
CN806
CN801
CN802
IC823 RGB SELECT
IC824 RGB SELECT
IC825 RGB SELECT
IC801 VIDEO SW. AMP
IC808 R DRV
IC809 G DRV
IC810 B DRV
IC802 SYNC PROCESS
IC803 (1/2) BUFF W/SW
IC803 (2/2) BUFF W/SW
IC804 V-CLP OUT
IC805 CS OUT
Q809 BUFF
IC811 SYNC SW
Q821 H BUFF
Q822, 823 PEAK HOLD
Q824 V BUFF
Q825, 826 PEAK HOLD
IC813 COMP
IC814 BUFF
Q805 G BUFF
Q810 INV
IC806 D/A CON.
Q802 SW
Q813 BUFF
Q812 BUFF
Q811 BUFF
Q808 SW
IC807 D/A CON.
D871
D872
IC817 +5V REG
IC818 -5V REG
IC816 +9V REG
R/G/B MON
R MON
G MON
B MON
MON OUT OFF
OUT R
OUT G
OUT B
OUT H
OUT V
AUDIO OL
AUDIO OR
TO QC BOARD CN1805
TO QB BOARD CN1203
TO QC BOARD CN1804
TO BB BOARD CN303
TO BB BOARD CN305
AR
AG
AB
AH
AV
IRDA
MS5V
DS2-
DS2+
AUDIO AL
AUDIO AR
BR
BG
BB
BH
BV
IRDB
SUB5V
AUDIO BL
AUDIO BR
BNC R
BNC G
BNC B
BNCH
BNCV
R. G. B
BNC R/G/B
BNC H/V
V-R. V-G. V-B
A/B
RE H
RE V
IRDA. IRDB. DS2-. DS2+
INPUTA SW1
INPUTA SW2
SRS ON
SPEAKER MUTE
CV/OTHER
YC/OTHER
AUDIO MUTE
SCLK
SDAT
AUDIO CE
US+
US-
USB P.FLG
DS1+
DS1-
MS P.ENA
US VBUS
USB P.ENA
SUB 5V
RGB SYNC
V-HD
V-VD
V-CLP
R/R-Y
G/Y
B/B-Y
SDA100K
SCL100K
IRD A
IRD B
+6V
+10V
-6V
+5V
-5V
+9V
MS 5V
USP P.FLG. MS P.ENA. USB P.ENA. SUB5V. MS5V
US+/-. DS1+/- US VBUS. SUB5V
AUDIO MUTE. SCLK. SDAT. AUDIO CE
INPUTA AW1/SW2
SRSON. SPEAKER MUTE
AUDIO OL/OR
AUDIO AL/AR. BL/BR
1
2
3
4
5
6
7
1
2
3
4
5
A
B
C
D
E
F
G
H


QA (AUDIO PROCESS)
CN804
A1
INPUTA SW1
A2
INPUTA SW2
A4
B4
A5
B5
USB DS+ DSI+
A8
B8
A9
B9
USB DS- DSI-
A12
B12
A13
B13
A14
B14
A15
B15
USB 5V
SWB 5V
A17
B17
US VBUS
A20
B20
A21
B21
USB US+ US+
A24
B24
A25
B25
USB US- US-
②
CN1204
TO QB BOARD
CN807
1
3
L-VIDEO
R-VIDEO
⑧
TO QD BOARD
CN1902
IC819
AUDIO SW1. PROCESSOR
AUDIO BL
AUDIO AL
L-VIDEO
AUDIO BR
AUDIO AR
R-VIDEO
SCLK
SDAT
AUDIO CE
42 IN11
41 IN12
40 IN13
43 IN21
44 IN22
45 IN23
21 CLK
16 DATA
22 CE
RE01 23
RE02 14
IC820
SOUND PROCESSOR
9 INL
OUTL 8
2 INR
OUTR 5
CNTL
7
IC821
VAR AMP
3 IN1+
OUT1 1
2 IN1-
5 IN2+
OUT2 7
6 IN2-
Q836
BUFF
Q837
BUFF
Q831
SW
Q832
SW
Q838
MIX
AUDIO OL
AUDIO OR
Q835
MUTE
SRS ON
Q834
MUTE
IC822
USB 5V/MS 5V CONTROL
8 OUTA
IN 7
SUB 5V
ENB 4
MSP.ENA
FLGA 2
USBP.FLG
5 OUTB
ENA 1
USBP.ENA
SP MUTE
+9V
Q833
MUTE
D844
MUTE MIX
CN809
L/R
1
SP-MUTE
3
⑨
TO K BOARD
CN2900
CN810
L
4
R
7
SP-MUTE
9
AUDIO +B
1
⑩
TO KS BOARD
CN2951
CN808
AUDIO +B
1
⑪
TO K BOARD
CN2901
MS 5V
AUDIO MUTE

QA BLOCK

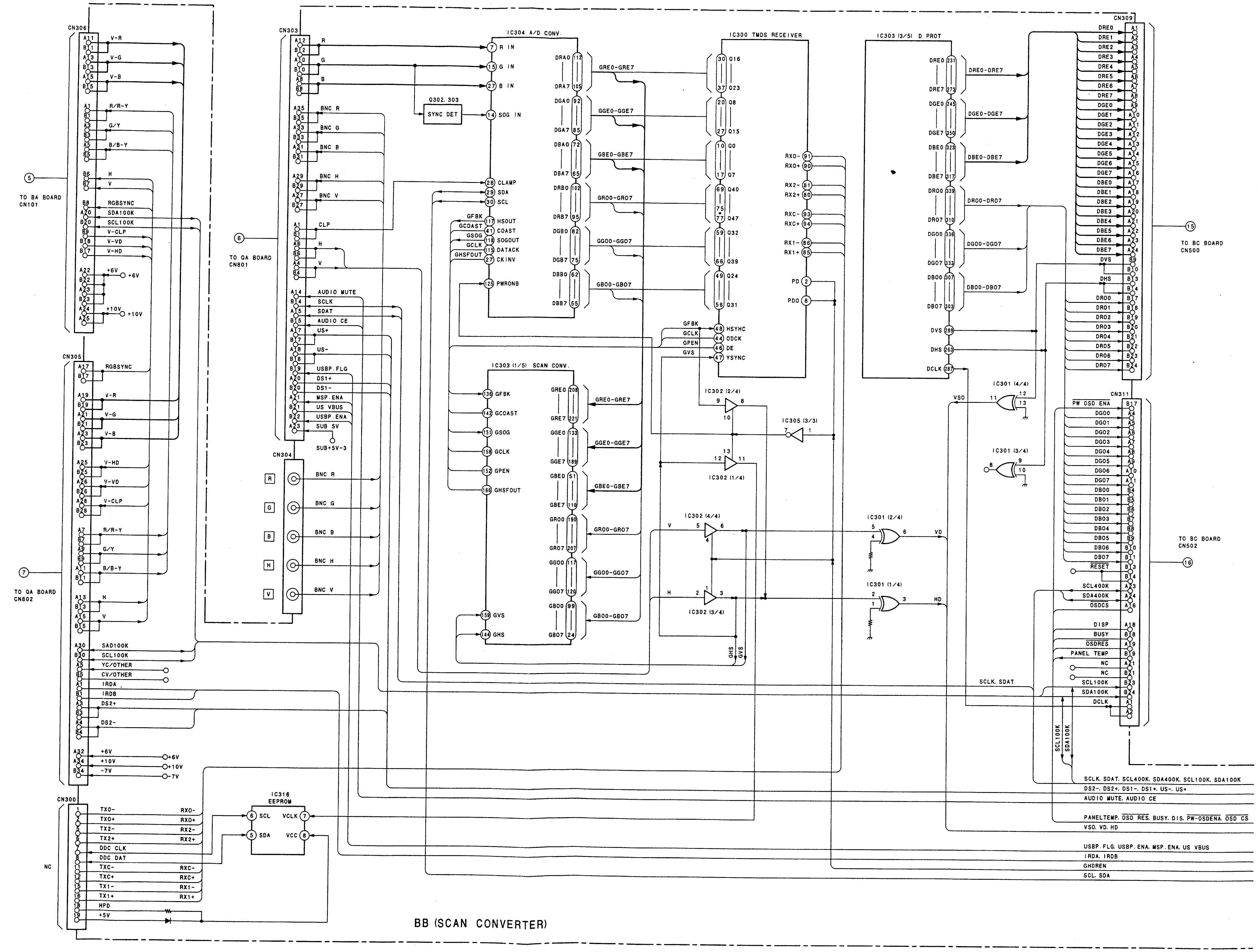
1

2

3

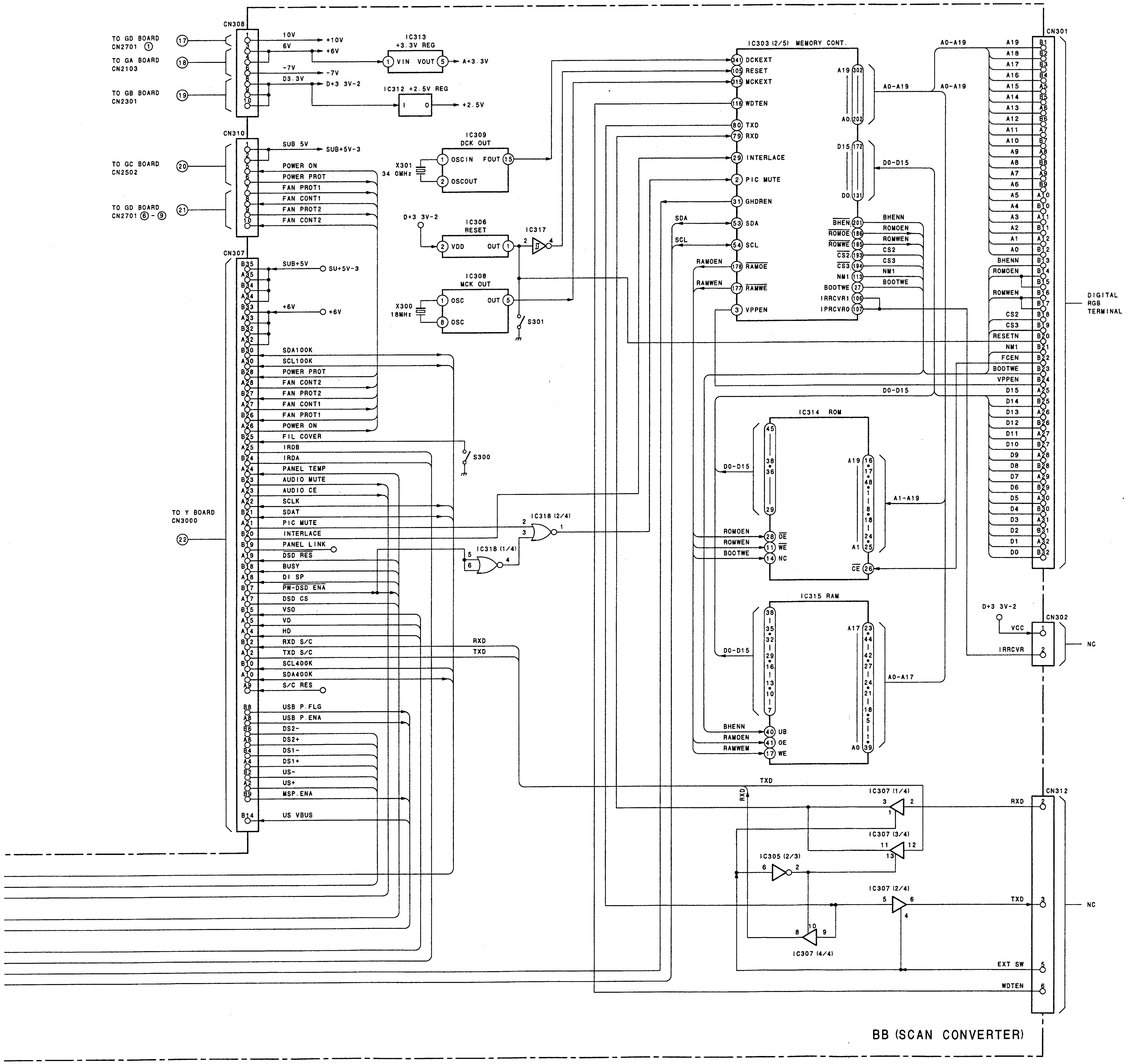
4

5


BB (SCAN CONVERTER)
CN306
CN305
CN303
CN304
CN300
CN309
CN311
TO BA BOARD CN101
TO QA BOARD CN801
TO QA BOARD CN802
TO BC BOARD CN500
TO BC BOARD CN502
IC304 A/D CONV.
IC300 TMDS RECEIVER
IC303 (3/5) D PROT
IC303 (1/5) SCAN CONV.
IC316 EEPROM
Q302, 303 SYNC DET
IC302 (2/4)
IC302 (1/4)
IC302 (4/4)
IC302 (3/4)
IC305 (3/3)
IC301 (4/4)
IC301 (3/4)
IC301 (2/4)
IC301 (1/4)
V-R
V-G
V-B
R/R-Y
G/Y
B/B-Y
H
V
RGBSYNC
SDA100K
SCL100K
V-CLP
V-HD
V-VD
+6V
+10V
-7V
R IN
G IN
B IN
SOG IN
BNC R
BNC G
BNC B
BNC H
BNC V
CLP
AUDIO MUTE
SCLK
SDAT
AUDIO CE
US+
US-
USBP.FLG
DS1+
DS1-
MSP.ENA
US VBUS
USBP.ENA
SUB 5V
SUB+5V-3
CLAMP
SDA
SCL
HSOUT
COAST
SOGOUT
DATACK
CKINV
PWRONB
GFBK
GCOAST
GSOG
GCLK
GHSFOUT
GPEN
GVS
GHS
GRE0-GRE7
GGE0-GGE7
GBE0-GBE7
GRO0-GRO7
GGO0-GGO7
GBO0-GBO7
HSYHC
ODCK
DE
YSYNC
RX0-
RX0+
RX1-
RX1+
RX2-
RX2+
RXC-
RXC+
PD
PDO
DRE0-DRE7
DGE0-DGE7
DBE0-DBE7
DRO0-DRO7
DGO0-DGO7
DBO0-DBO7
DVS
DHS
DCLK
VSO
VD
HD
PW OSD ENA
RESET
SCL400K
SDA400K
OSDCS
DISP
BUSY
OSDRES
PANEL TEMP
NC
SAD100K
YC/OTHER
CV/OTHER
IRDA
IRDB
DS2+
DS2-
TX0-
TX0+
TX1-
TX1+
TX2-
TX2+
TXC-
TXC+
DDC CLK
DDC DAT
HPD
+5V
SCL
SDA
VCLK
VCC
SCLK, SDAT
SCLK, SDAT, SCL400K, SDA400K, SCL100K, SDA100K
DS2-, DS2+, DS1-, DS1+, US-, US+
AUDIO MUTE, AUDIO CE
PANELTEMP, OSD RES, BUSY, DIS, PW-OSDENA, OSD CS
VSO, VD, HD
USBP.FLG, USBP.ENA, MSP.ENA, US VBUS
IRDA, IRDB
GHDREN
SCL, SDA

A | B | C | D | E | F | G | H

SONY-SP01178/DRUCK6


CN308
TO GD BOARD CN2701 ①
TO GA BOARD CN2103
TO GB BOARD CN2301
10V
6V
-7V
D3.3V
+10V
+6V
-7V
D+3 3V-2
IC313 +3.3V REG
VIN VOUT
A+3.3V
IC312 +2.5V REG
+2.5V
CN310
TO GC BOARD CN2502
TO GD BOARD CN2701 ⑥-⑨
SUB 5V
SUB+5V-3
POWER ON
POWER PROT
FAN PROT1
FAN CONT1
FAN PROT2
FAN CONT2
IC309 DCK OUT
X301 34 0MHz
OSCIN
FOUT
OSCOUT
IC306 RESET
VDD
OUT
IC317
IC308 MCK OUT
X300 18MHz
OSC
S301
CN307
SUB+5V
SU+5V-3
+6V
SDA100K
SCL100K
PANEL TEMP
AUDIO MUTE
AUDIO CE
SCLK
SDAT
PIC MUTE
INTERLACE
PANEL LINK
DSD RES
BUSY
DI SP
PW-DSD ENA
DSD CS
VSO
VD
HD
RXD S/C
TXD S/C
SCL400K
SDA400K
S/C RES
USB P.FLG
USB P.ENA
DS2-
DS2+
DS1-
DS1+
US-
US+
MSP.ENA
US VBUS
FIL COVER
IRDB
IRDA
S300
TO Y BOARD CN3000
IC318 (2/4)
IC318 (1/4)
RXD
TXD
IC303 (2/5) MEMORY CONT.
DCKEXT
RESET
MCKEXT
WDTEN
TXD
RXD
INTERLACE
PIC MUTE
GHDREN
SDA
SCL
RAMOE
RAMWE
VPPEN
RAMOEN
RAMWEN
A19
A0
D15
D0
BHEN
ROMOE
ROMWE
CS2
CS3
NM1
BOOTWE
IRRCVR1
IRRCVRO
A0-A19
D0-D15
BHENN
ROMOEN
ROMWEN
IC314 ROM
OE
WE
NC
CE
A1-A19
IC315 RAM
UB
A0-A17
CN301
DIGITAL RGB TERMINAL
RESETN
FCEN
CN302
VCC
IRRCVR
NC
IC307 (1/4)
IC307 (3/4)
IC307 (2/4)
IC307 (4/4)
IC305 (2/3)
CN312
EXT SW
WDTEN
BB (SCAN CONVERTER)

BB BLOCK

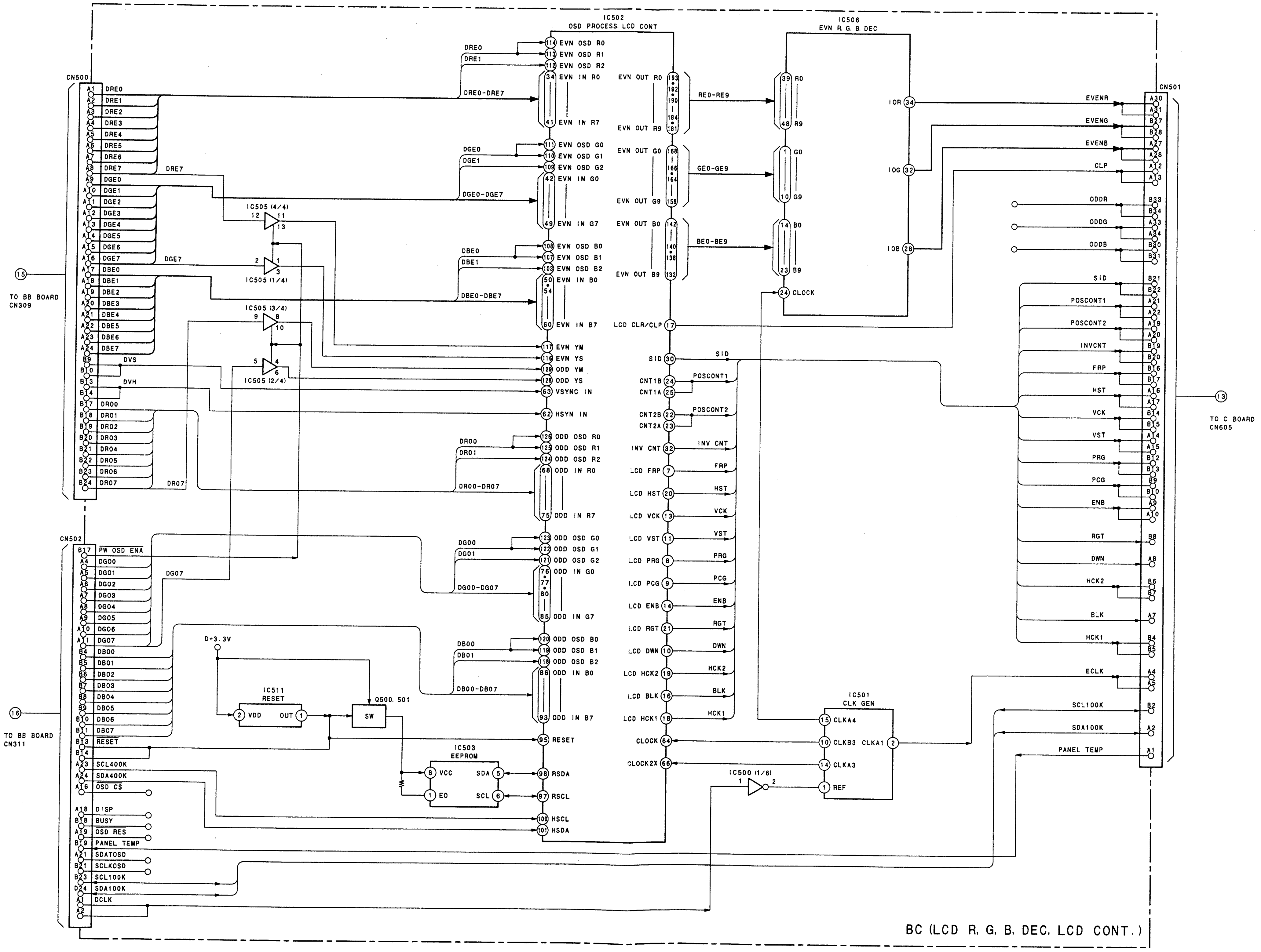
1

2

3

4

5


IC502
OSD PROCESS. LCD CONT
IC506
EVN R. G. B. DEC
CN500
CN501
CN502
TO BB BOARD
CN309
TO BB BOARD
CN311
TO C BOARD
CN605
IC505 (4/4)
IC505 (1/4)
IC505 (3/4)
IC505 (2/4)
IC511
RESET
IC503
EEPROM
IC501
CLK GEN
IC500 (1/6)
Q500, 501
SW
D+3.3V
DRE0
DRE1
DRE0-DRE7
DGE0
DGE1
DGE0-DGE7
DBE0
DBE1
DBE0-DBE7
DR00
DR01
DR00-DR07
DG00
DG01
DG00-DG07
DB00
DB01
DB00-DB07
DVS
DVH
DRE7
DGE7
DR07
DG07
EVN OSD R0
EVN OSD R1
EVN OSD R2
EVN IN R0
EVN IN R7
EVN OSD G0
EVN OSD G1
EVN OSD G2
EVN IN G0
EVN IN G7
EVN OSD B0
EVN OSD B1
EVN OSD B2
EVN IN B0
EVN IN B7
EVN YM
EVN YS
ODD YM
ODD YS
VSYNC IN
HSYN IN
ODD OSD R0
ODD OSD R1
ODD OSD R2
ODD IN R0
ODD IN R7
ODD OSD G0
ODD OSD G1
ODD OSD G2
ODD IN G0
ODD IN G7
ODD OSD B0
ODD OSD B1
ODD OSD B2
ODD IN B0
ODD IN B7
RESET
RSDA
RSCL
HSCL
HSDA
EVN OUT R0
EVN OUT R9
EVN OUT G0
EVN OUT G9
EVN OUT B0
EVN OUT B9
RE0-RE9
GE0-GE9
BE0-BE9
LCD CLR/CLP
SID
CNT1B
CNT1A
CNT2B
CNT2A
INV CNT
LCD FRP
LCD HST
LCD VCK
LCD VST
LCD PRG
LCD PCG
LCD ENB
LCD RGT
LCD DWN
LCD HCK2
LCD BLK
LCD HCK1
CLOCK
CLOCK2X
POSCONT1
POSCONT2
R0
R9
G0
G9
B0
B9
CLOCK
IOR
IOG
IOB
CLKA4
CLKB3
CLKA1
CLKA3
REF
VDD
OUT
VCC
SDA
EO
SCL
EVENR
EVENG
EVENB
CLP
ODDR
ODDG
ODDB
SID
POSCONT1
POSCONT2
INVCNT
FRP
HST
VCK
VST
PRG
PCG
ENB
RGT
DWN
HCK2
BLK
HCK1
ECLK
SCL100K
SDA100K
PANEL TEMP
PW OSD ENA
SCL400K
SDA400K
OSD CS
DISP
BUSY
OSD RES
PANEL TEMP
SDATOSD
SCLKOSD
SCL100K
SDA100K
DCLK
15
16
13
BC (LCD R, G, B, DEC, LCD CONT.)

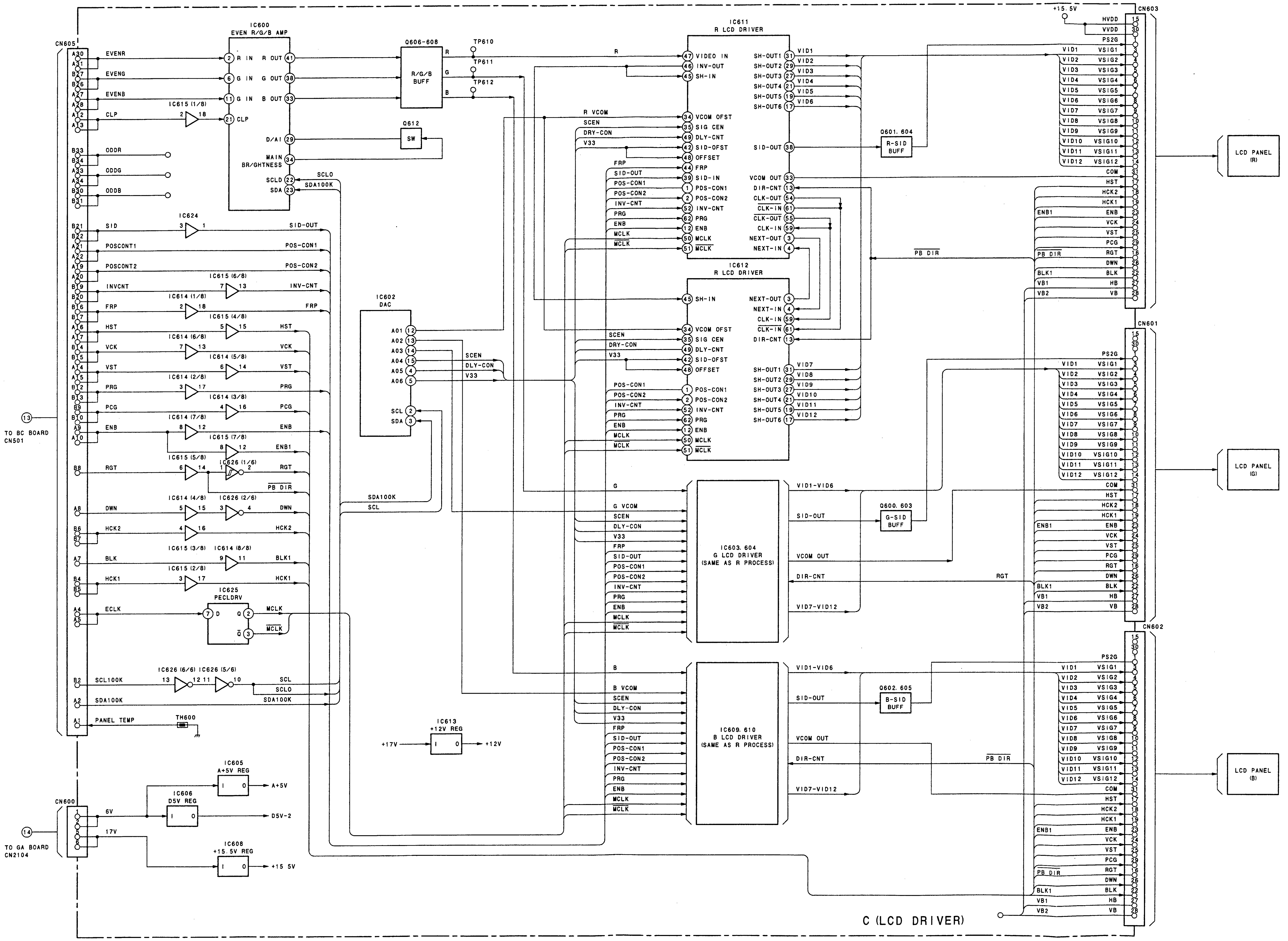
BC BLOCK

VPL-PX20/PX30

A | B | C | D | E | F | G | H

SONY-SP01178/DRUCK8

C C


CN605
IC600
EVEN R/G/B AMP
EVENR
EVENG
EVENB
CLP
R IN
G IN
B IN
R OUT
G OUT
B OUT
D/A1
MAIN BRIGHTNESS
SCLD
SDA
SCLO
SDA100K
Q606-608
R/G/B BUFF
TP610
TP611
TP612
Q612
SW
ODDR
ODDG
ODDB
IC624
SID
SID-OUT
POSCONT1
POS-CON1
POSCONT2
POS-CON2
INVCNT
INV-CNT
FRP
HST
VCK
VST
PRG
PCG
ENB
ENB1
RGT
PB DIR
DWN
HCK2
BLK
HCK1
IC615 (1/8)
IC615 (6/8)
IC614 (1/8)
IC615 (4/8)
IC614 (6/8)
IC614 (5/8)
IC614 (2/8)
IC614 (3/8)
IC614 (7/8)
IC615 (7/8)
IC615 (5/8)
IC626 (1/6)
IC614 (4/8)
IC626 (2/6)
IC615 (3/8)
IC614 (8/8)
IC615 (2/8)
IC625
PECLDRV
ECLK
MCLK
SCL100K
IC626 (6/6) IC626 (5/6)
SCL
SCLO
PANEL TEMP
TH600
13
TO BC BOARD
CN501
IC602
DAC
A01
A02
A03
A04
A05
A06
SCEN
DLY-CON
V33
IC613
+12V REG
+17V
+12V
CN600
6V
17V
14
TO GA BOARD
CN2104
IC605
A+5V REG
A+5V
IC606
D5V REG
D5V-2
IC608
+15.5V REG
+15 5V
IC611
R LCD DRIVER
VIDEO IN
INV-OUT
SH-IN
R VCOM
VCOM OFST
SIG CEN
DLY-CNT
SID-OFST
OFFSET
SID-IN
PDS-CON1
POS-CON2
INV-CNT
MCLK
SH-OUT1
SH-OUT2
SH-OUT3
SH-OUT4
SH-OUT5
SH-OUT6
SID-OUT
VCOM OUT
DIR-CNT
CLK-OUT
CLK-IN
NEXT-OUT
NEXT-IN
VID1
VID2
VID3
VID4
VID5
VID6
IC612
R LCD DRIVER
VID7
VID8
VID9
VID10
VID11
VID12
Q601, 604
R-SID BUFF
Q600, 603
G-SID BUFF
Q602, 605
B-SID BUFF
IC603, 604
G LCD DRIVER
(SAME AS R PROCESS)
G VCOM
VID1-VID6
VID7-VID12
IC609, 610
B LCD DRIVER
(SAME AS R PROCESS)
B VCOM
+15.5V
CN603
CN601
CN602
HVDD
VVDD
PS2G
VSIG1
VSIG2
VSIG3
VSIG4
VSIG5
VSIG6
VSIG7
VSIG8
VSIG9
VSIG10
VSIG11
VSIG12
COM
HB
VB
VB1
VB2
BLK1
LCD PANEL (R)
LCD PANEL (G)
LCD PANEL (B)
C (LCD DRIVER)

1

2

3

4

5

C BLOCK

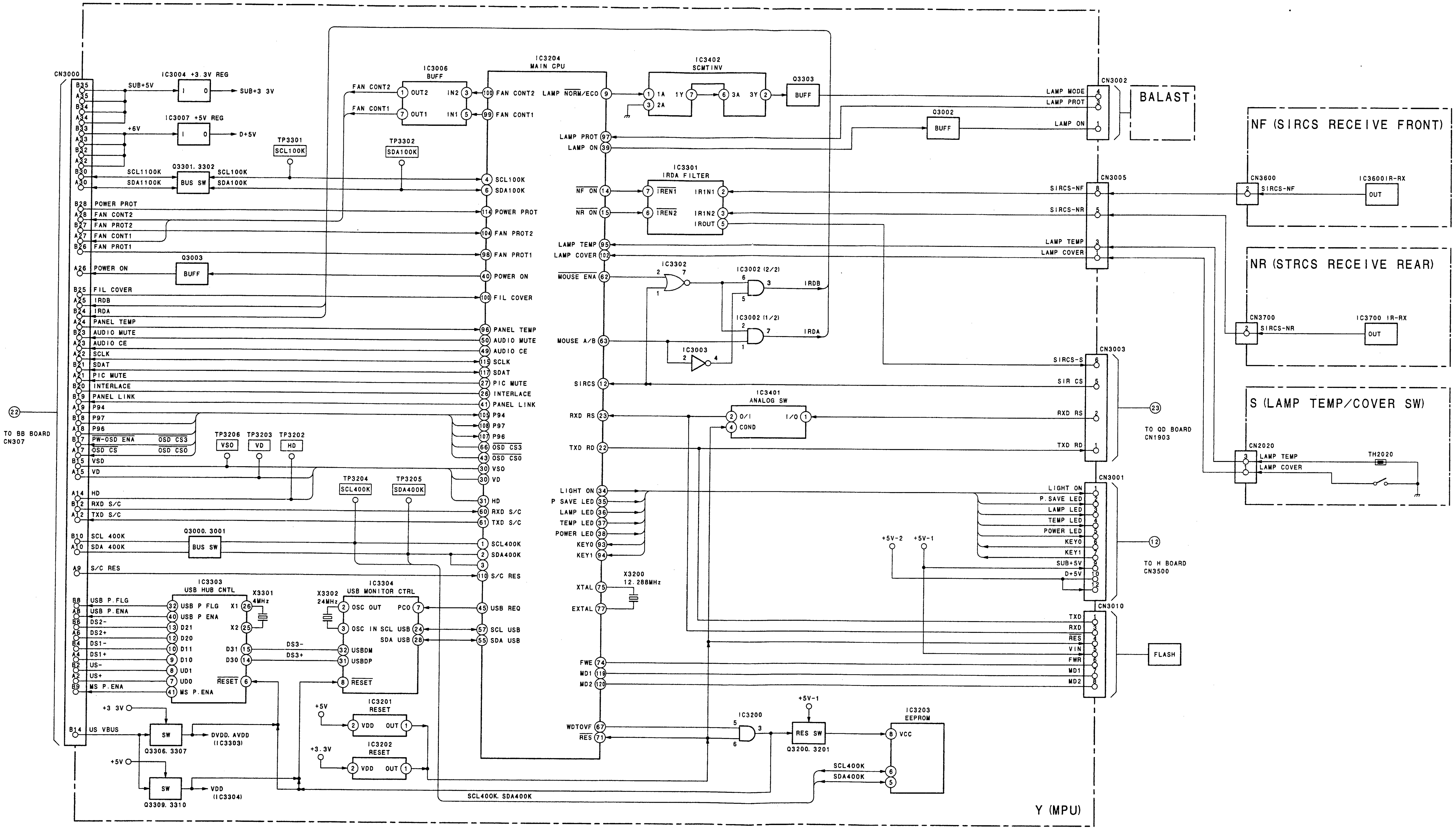
1

2

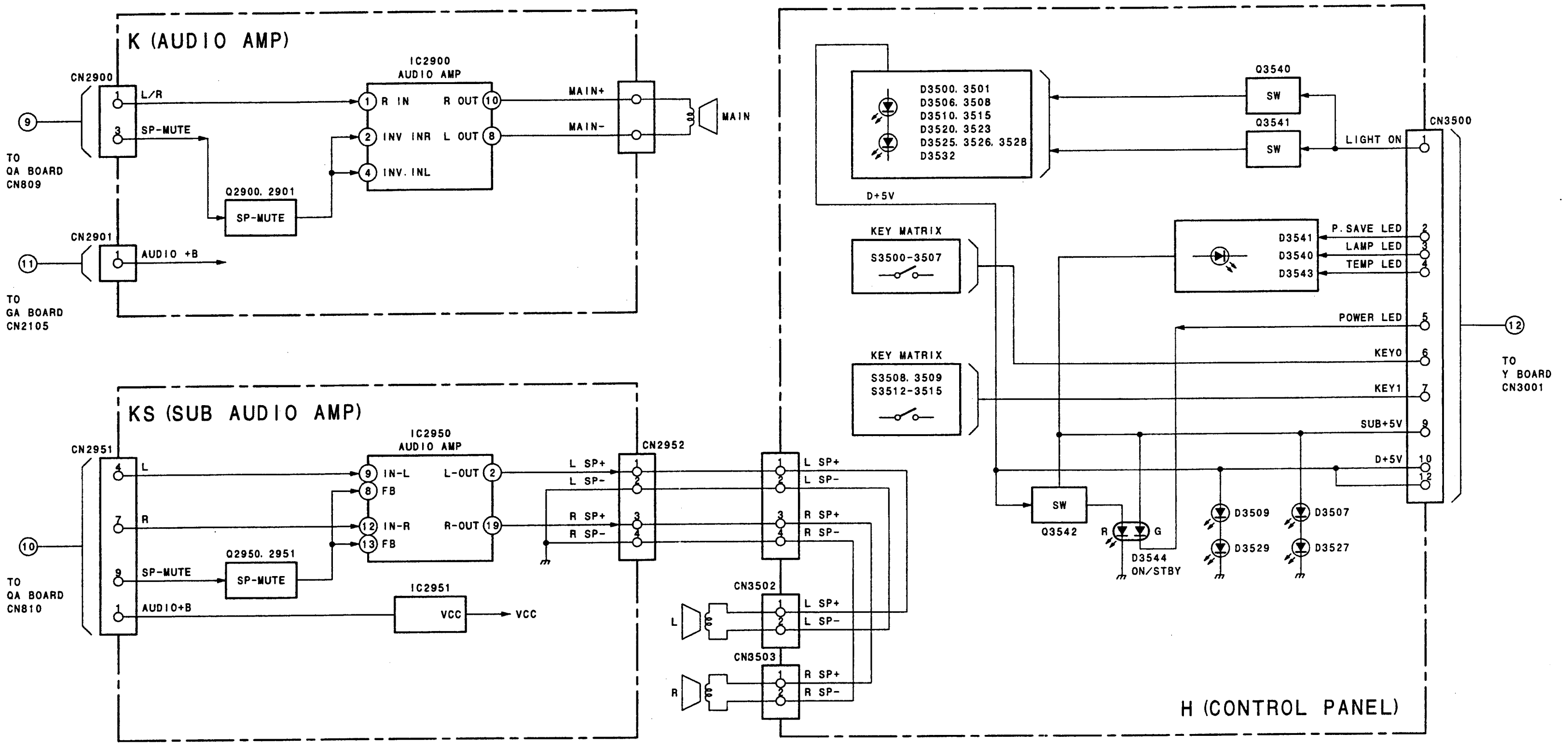
3

4

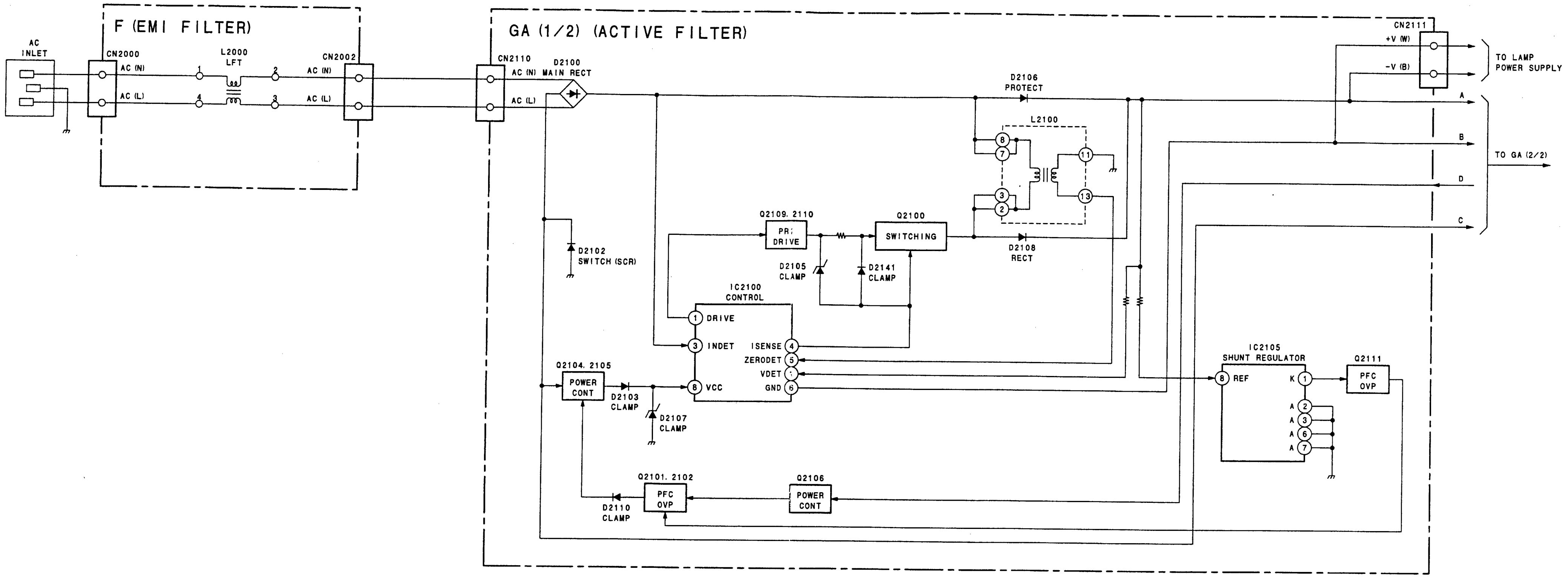
5


CN3000
IC3004 +3.3V REG
IC3007 +5V REG
IC3006 BUFF
IC3204 MAIN CPU
IC3402 SCMTINV
Q3303 BUFF
Q3002 BUFF
CN3002
BALAST
LAMP MODE
LAMP PROT
LAMP ON
TP3301 SCL100K
TP3302 SDA100K
Q3301, 3302 BUS SW
SCL100K
SDA100K
IC3301 IRDA FILTER
CN3005
SIRCS-NF
SIRCS-NR
LAMP TEMP
LAMP COVER
NF (SIRCS RECEIVE FRONT)
CN3600
IC3600 IR-RX
NR (STRCS RECEIVE REAR)
CN3700
IC3700 IR-RX
S (LAMP TEMP/COVER SW)
CN2020
TH2020
POWER PROT
FAN CONT2
FAN PROT2
FAN CONT1
FAN PROT1
POWER ON
Q3003 BUFF
FIL COVER
IRDB
IRDA
PANEL TEMP
AUDIO MUTE
AUDIO CE
SCLK
SDAT
PIC MUTE
INTERLACE
PANEL LINK
P94
P97
P96
PW-OSD ENA
OSD CS
OSD CS3
OSD CS0
VSD
VD
HD
RXD S/C
TXD S/C
SCL 400K
SDA 400K
S/C RES
TP3206 VSO
TP3203 VD
TP3202 HD
TP3204 SCL400K
TP3205 SDA400K
Q3000, 3001 BUS SW
IC3302
IC3002 (2/2)
IC3002 (1/2)
IC3003
MOUSE ENA
MOUSE A/B
SIRCS
IC3401 ANALOG SW
RXD RS
TXD RD
CN3003
SIRCS-S
SIR CS
22
TO BB BOARD CN307
23
TO QD BOARD CN1903
LIGHT ON
P SAVE LED
LAMP LED
TEMP LED
POWER LED
KEY0
KEY1
CN3001
SUB+5V
D+5V
+5V-2
+5V-1
12
TO H BOARD CN3500
X3200 12.288MHz
XTAL
EXTAL
IC3303 USB HUB CNTL
X3301 4MHz
IC3304 USB MONITOR CTRL
X3302 24MHz
USB P.FLG
USB P.ENA
DS2-
DS2+
DS1-
DS1+
US-
US+
MS P.ENA
USB REQ
SCL USB
SDA USB
CN3010
TXD
RXD
RES
VIN
FWR
MD1
MD2
FLASH
FWE
IC3201 RESET
IC3202 RESET
US VBUS
Q3306, 3307 SW
DVDD, AVDD (IC3303)
Q3309, 3310 SW
VDD (IC3304)
IC3200
WDTOVF
RES
+5V-1
Q3200, 3201 RES SW
IC3203 EEPROM
SCL400K
SDA400K
SCL400K, SDA400K
Y (MPU)

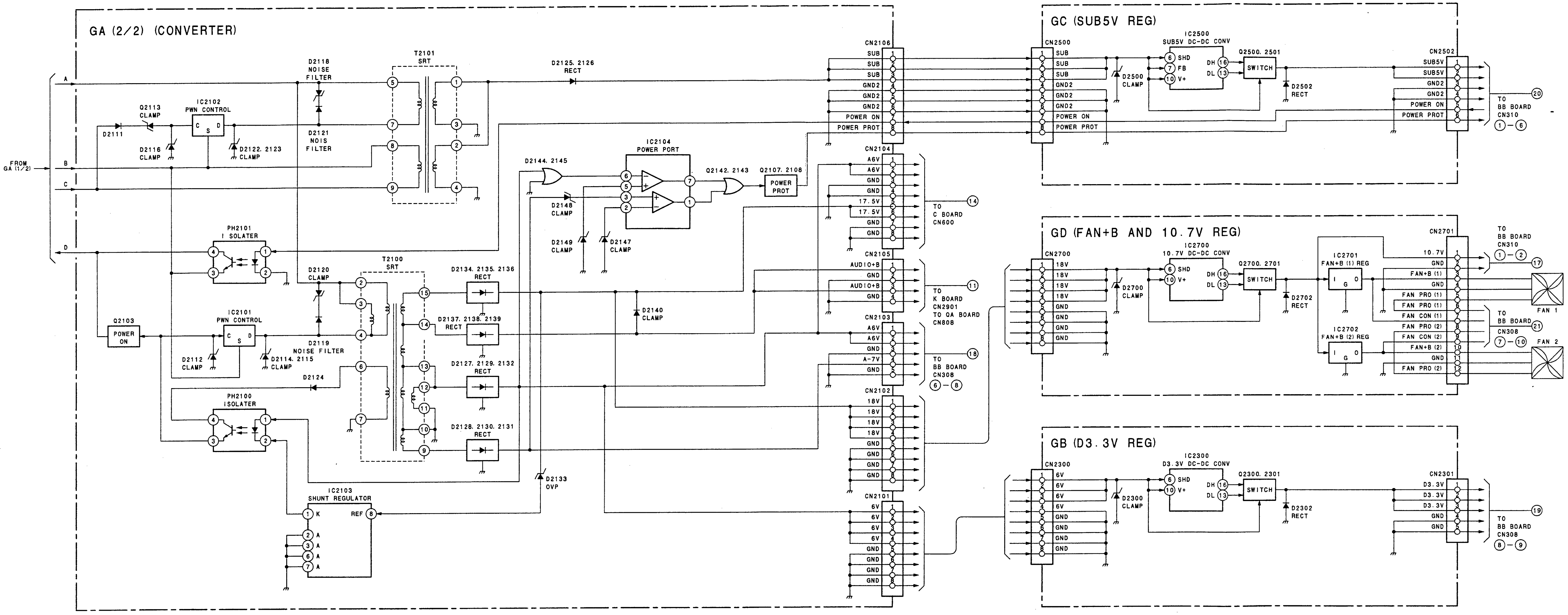
Y, S, NF, NR BLOCK


K (AUDIO AMP)
CN2900
9
TO
QA BOARD
CN809
1
L/R
3
SP-MUTE
IC2900
AUDIO AMP
1 R IN
2 INV INR
4 INV. INL
R OUT 10
L OUT 8
Q2900, 2901
SP-MUTE
MAIN+
MAIN-
MAIN
CN2901
11
TO
GA BOARD
CN2105
AUDIO +B
KS (SUB AUDIO AMP)
CN2951
10
TO
QA BOARD
CN810
4 L
7 R
9 SP-MUTE
1 AUDIO+B
IC2950
AUDIO AMP
9 IN-L
8 FB
12 IN-R
13 FB
L-OUT 2
R-OUT 19
Q2950, 2951
SP-MUTE
IC2951
VCC
VCC
CN2952
L SP+
L SP-
R SP+
R SP-
CN3502
L
CN3503
R
H (CONTROL PANEL)
D3500, 3501
D3506, 3508
D3510, 3515
D3520, 3523
D3525, 3526, 3528
D3532
Q3540
SW
Q3541
SW
LIGHT ON
CN3500
D+5V
KEY MATRIX
S3500-3507
KEY MATRIX
S3508, 3509
S3512-3515
D3541
D3540
D3543
P.SAVE LED
LAMP LED
TEMP LED
POWER LED
KEY0
KEY1
SUB+5V
D+5V
12
TO
Y BOARD
CN3001
SW
Q3542
R G
D3544
ON/STBY
D3509
D3529
D3507
D3527

K, KS, H BLOCK


F (EMI FILTER)
AC INLET
CN2000
AC (N)
AC (L)
L2000
LFT
1
2
3
4
CN2002
AC (N)
AC (L)
GA (1/2) (ACTIVE FILTER)
CN2110
AC (N)
AC (L)
D2100
MAIN RECT
D2102
SWITCH (SCR)
D2106
PROTECT
L2100
8
7
3
2
11
13
Q2109, 2110
PR/
DRIVE
Q2100
SWITCHING
D2108
RECT
D2105
CLAMP
D2141
CLAMP
IC2100
CONTROL
1 DRIVE
3 INDET
8 VCC
ISENSE 4
ZERODET 5
VDET 1
GND 6
Q2104, 2105
POWER
CONT
D2103
CLAMP
D2107
CLAMP
Q2101, 2102
PFC
OVP
D2110
CLAMP
Q2106
POWER
CONT
IC2105
SHUNT REGULATOR
8 REF
K 1
A 2
A 3
A 6
A 7
Q2111
PFC
OVP
CN2111
+V (W)
-V (B)
TO LAMP
POWER SUPPLY
A
B
D
C
TO GA (2/2)

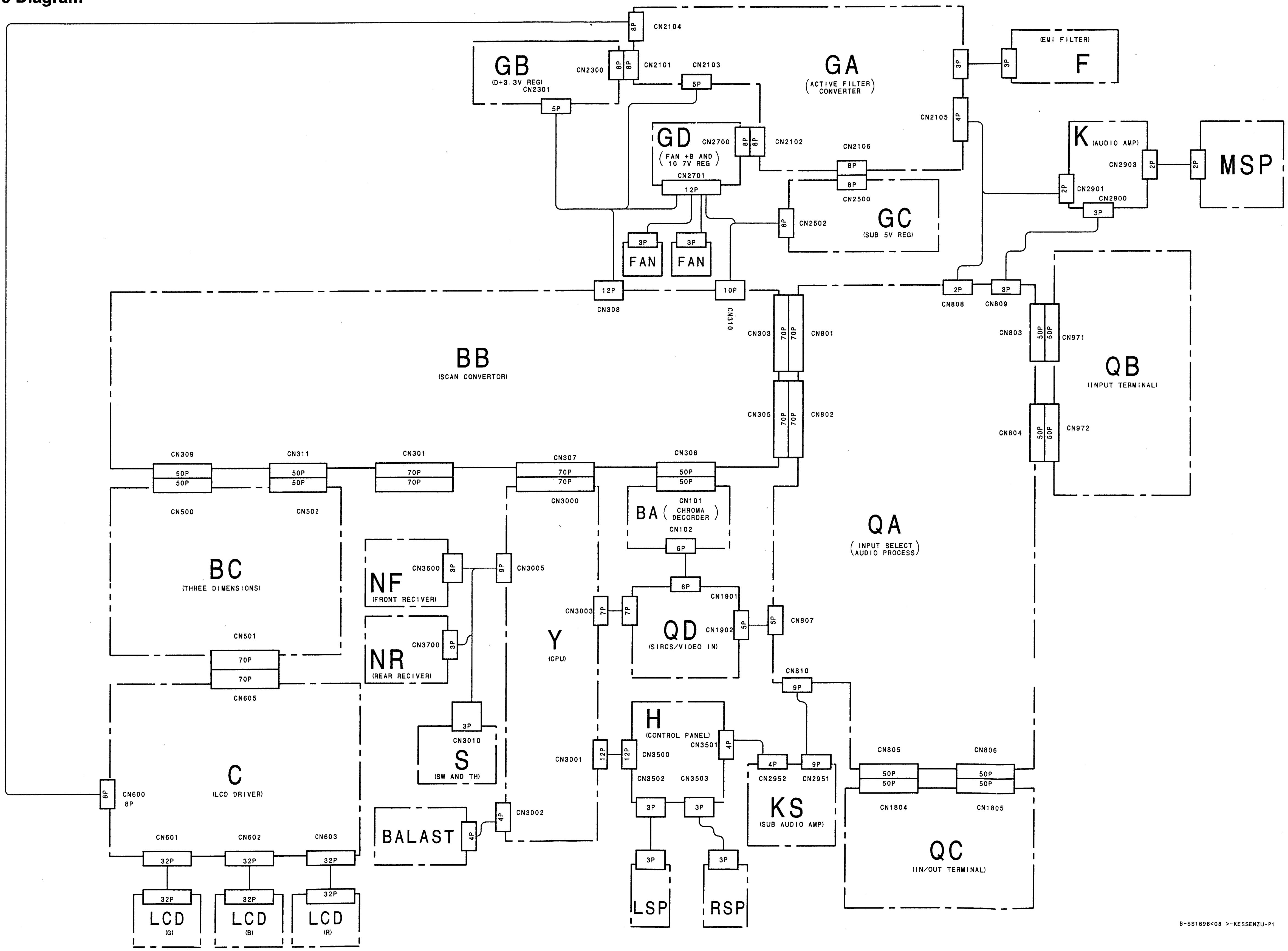
F BLOCK
GA BLOCK (1/2)


GA (2/2) (CONVERTER)
FROM GA (1/2)
A
B
C
D
D2111
Q2113 CLAMP
IC2102 PWN CONTROL
D2116 CLAMP
D2122, 2123 CLAMP
D2118 NOISE FILTER
D2121 NOIS FILTER
T2101 SRT
D2125, 2126 RECT
PH2101 I SOLATER
Q2103 POWER ON
IC2101 PWN CONTROL
D2112 CLAMP
D2114, 2115 CLAMP
D2119 NOISE FILTER
D2120 CLAMP
D2124
PH2100 ISOLATER
T2100 SRT
D2134, 2135, 2136 RECT
D2137, 2138, 2139 RECT
D2127, 2129, 2132 RECT
D2128, 2130, 2131 RECT
IC2103 SHUNT REGULATOR
K
REF
A
D2133 OVP
D2144, 2145
D2148 CLAMP
D2149 CLAMP
D2147 CLAMP
IC2104 POWER PORT
Q2142, 2143
Q2107, 2108
POWER PROT
D2140 CLAMP
CN2106
SUB
SUB
SUB
GND2
GND2
GND2
POWER ON
POWER PROT
CN2104
A6V
A6V
GND
GND
17.5V
17.5V
GND
GND
TO C BOARD CN600
⑭
CN2105
AUDIO+B
GND
AUDIO+B
GND
TO K BOARD CN2901 TO QA BOARD CN808
⑪
CN2103
A6V
A6V
GND
A-7V
GND
TO BB BOARD CN308 ⑥-⑧
⑱
CN2102
18V
18V
18V
18V
GND
GND
GND
GND
CN2101
6V
6V
6V
6V
GND
GND
GND
GND
GC (SUB5V REG)
CN2500
SUB
SUB
SUB
GND2
GND2
GND2
POWER ON
POWER PROT
IC2500 SUB5V DC-DC CONV
SHD
FB
V+
DH
DL
D2500 CLAMP
Q2500, 2501
SWITCH
D2502 RECT
CN2502
SUB5V
SUB5V
GND2
GND2
POWER ON
POWER PROT
TO BB BOARD CN310 ①-⑥
⑳
GD (FAN+B AND 10.7V REG)
CN2700
18V
18V
18V
18V
GND
GND
GND
GND
IC2700 10.7V DC-DC CONV
SHD
V+
DH
DL
D2700 CLAMP
Q2700, 2701
SWITCH
D2702 RECT
IC2701 FAN+B (1) REG
IC2702 FAN+B (2) REG
I
G
O
CN2701
10.7V
GND
FAN+B (1)
GND
FAN PRO (1)
FAN PRO (1)
FAN CON (1)
FAN PRO (2)
FAN CON (2)
FAN+B (2)
GND
FAN PRO (2)
TO BB BOARD CN310 ①-②
⑰
FAN 1
TO BB BOARD CN308 ⑦-⑩
㉑
FAN 2
GB (D3.3V REG)
CN2300
6V
6V
6V
6V
GND
GND
GND
GND
IC2300 D3.3V DC-DC CONV
SHD
V+
DH
DL
D2300 CLAMP
Q2300, 2301
SWITCH
D2302 RECT
CN2301
D3.3V
D3.3V
D3.3V
GND
GND
TO BB BOARD CN308 ⑧-⑨
⑲

GA BLOCK (2/2)
GB, GC, GD BLOCK

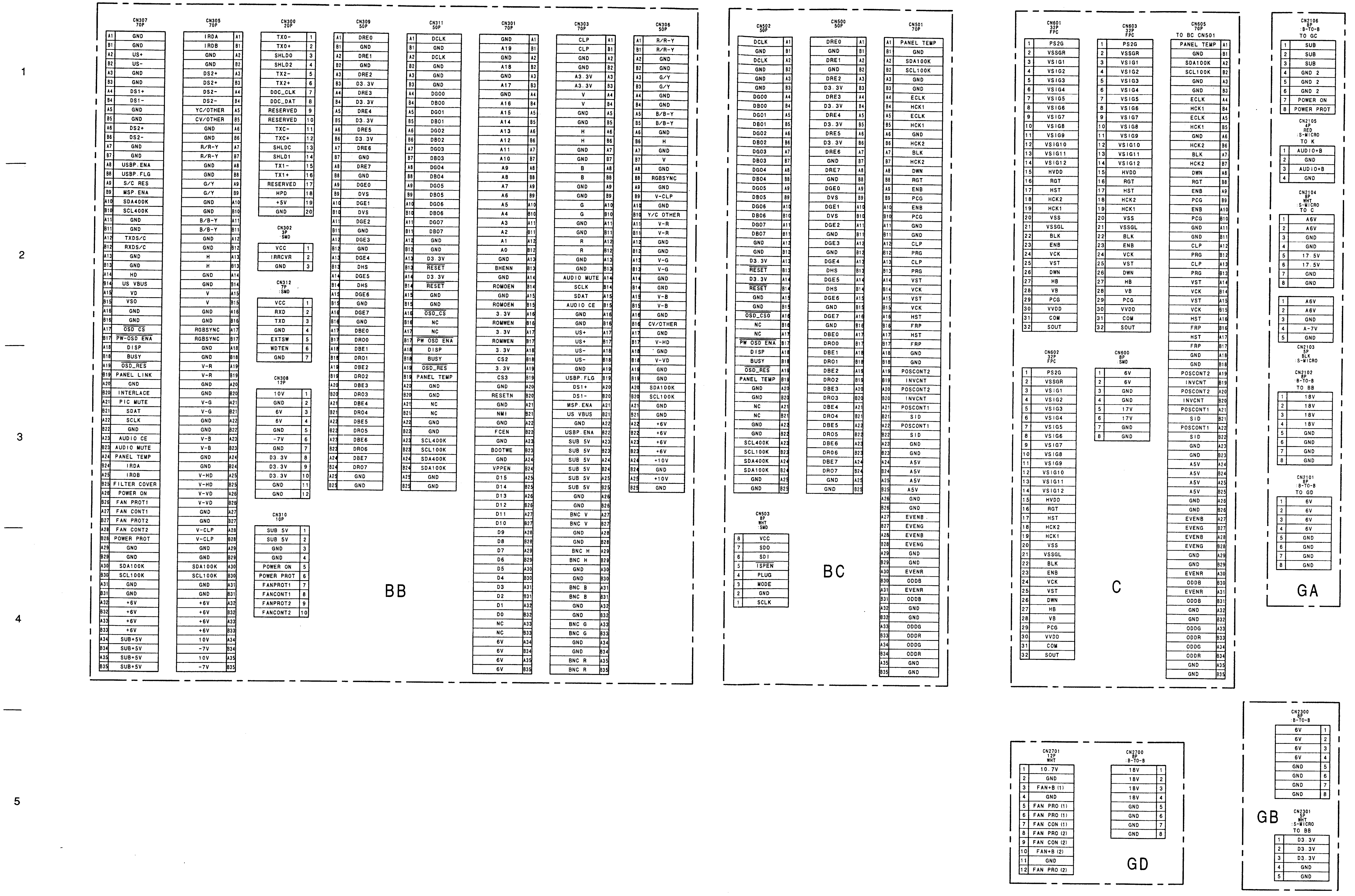
Section 9
Diagrams

9-1. Frame Schematic Diagram


GB
(D+3.3V REG)
CN2300
CN2301
5P
8P
CN2104
8P
8P
CN2101
CN2103
5P
GA
(ACTIVE FILTER CONVERTER)
3P
3P
(EMI FILTER)
F
CN2105
4P
GD
(FAN +B AND 10.7V REG)
CN2700
8P
8P
CN2102
CN2106
8P
8P
CN2500
CN2701
12P
K (AUDIO AMP)
CN2903
2P
2P
MSP
2P
CN2901
CN2900
3P
GC
(SUB 5V REG)
6P
CN2502
3P
FAN
3P
FAN
12P
CN308
10P
CN310
2P
3P
CN808
CN809
BB
(SCAN CONVERTOR)
CN303
70P
70P
CN801
CN305
70P
70P
CN802
CN803
50P
50P
CN971
QB
(INPUT TERMINAL)
CN804
50P
50P
CN972
CN309
50P
50P
CN311
50P
50P
CN301
70P
70P
CN307
70P
70P
CN306
50P
50P
CN500
CN502
CN3000
BA (CHROMA DECORDER)
CN101
CN102
6P
QA
(INPUT SELECT AUDIO PROCESS)
BC
(THREE DIMENSIONS)
NF
CN3600
3P
(FRONT RECIVER)
9P
CN3005
6P
CN1901
CN3003
7P
7P
QD
(SIRCS/VIDEO IN)
CN1902
5P
5P
CN807
NR
CN3700
3P
(REAR RECIVER)
Y
(CPU)
CN501
70P
70P
CN605
CN810
9P
3P
CN3010
S
(SW AND TH)
H
(CONTROL PANEL)
CN3501
4P
CN3001
12P
12P
CN3500
4P
9P
CN2952
CN2951
CN805
50P
50P
CN1804
CN806
50P
50P
CN1805
C
(LCD DRIVER)
8P
CN600
8P
BALAST
4P
4P
CN3002
CN3502
CN3503
3P
3P
KS
(SUB AUDIO AMP)
QC
(IN/OUT TERMINAL)
CN601
CN602
CN603
32P
32P
32P
32P
32P
32P
LCD
(G)
LCD
(B)
LCD
(R)
3P
LSP
3P
RSP
8-SS1696<08 >-KESSENZU-P1
1
2
3
4
5
A
B
C
D
E
F
G
H

FRAME (2/3)

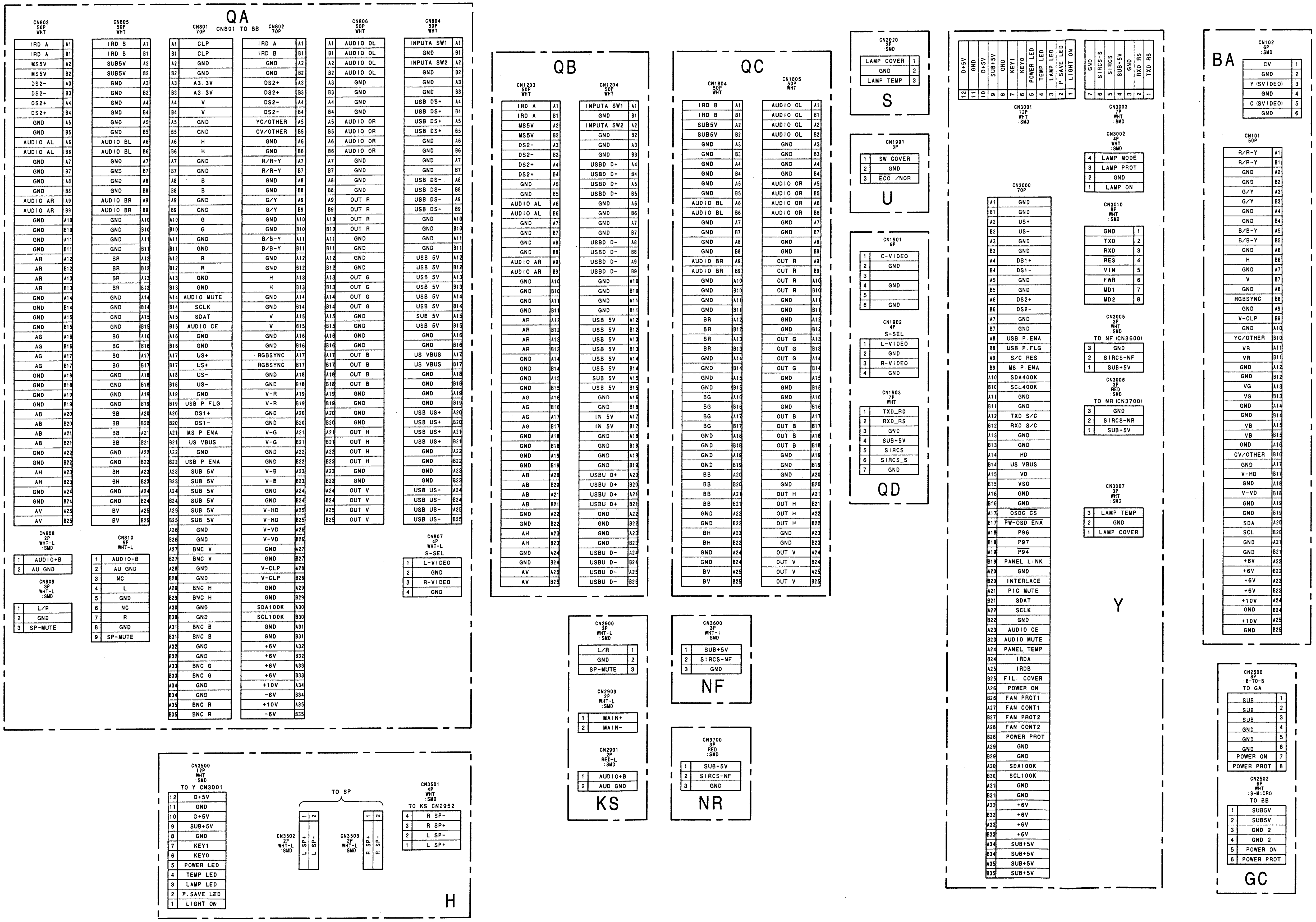
FRAME (2/3)


BB
CN307 70P
CN305 70P
CN300 20P
CN309 50P
CN311 50P
CN301 70P
CN303 70P
CN306 50P
CN302 3P :SMD
CN312 7P :SMD
CN308 12P
CN310 10P
BC
CN502 50P
CN500 50P
CN501 70P
CN503 8P WHT :SMD
C
CN601 32P FPC
CN603 32P FPC
CN605 70P TO BC CN501
CN602 32P FPC
CN600 8P SMD
GA
CN2106 8P :B-TO-B TO GC
CN2105 4P RED :S-MICRO TO K
CN2104 8P WHT S-MICRO TO C
CN2103 5P BLK :S-MICRO
CN2102 8P :B-TO-B TO BB
CN2101 8P :B-TO-B TO GD
GB
CN2300 8P B-TO-B
CN2301 5P WHT :S-MICRO TO BB
GD
CN2701 12P WHT
CN2700 8P :B-TO-B
1
2
3
4
5
A
B
C
D
E
F
G
H

B-SS1696<08 >-KESSENZU-P2

FRAME (3/3)

FRAME (3/3)


QA
CN803
50P
WHT
IRD A A1
IRD A B1
MS5V A2
MS5V B2
DS2- A3
DS2- B3
DS2+ A4
DS2+ B4
GND A5
GND B5
AUDIO AL A6
AUDIO AL B6
GND A7
GND B7
GND A8
GND B8
AUDIO AR A9
AUDIO AR B9
GND A10
GND B10
GND A11
GND B11
AR A12
AR B12
AR A13
AR B13
GND A14
GND B14
GND A15
GND B15
AG A16
AG B16
AG A17
AG B17
GND A18
GND B18
GND A19
GND B19
AB A20
AB B20
AB A21
AB B21
GND A22
GND B22
AH A23
AH B23
GND A24
GND B24
AV A25
AV B25
CN808
2P
WHT-L
:SMD
1 AUDIO+B
2 AU GND
CN809
3P
WHT-L
:SMD
1 L/R
2 GND
3 SP-MUTE
CN805
50P
WHT
IRD B A1
IRD B B1
SUB5V A2
SUB5V B2
GND A3
GND B3
GND A4
GND B4
GND A5
GND B5
AUDIO BL A6
AUDIO BL B6
GND A7
GND B7
GND A8
GND B8
AUDIO BR A9
AUDIO BR B9
GND A10
GND B10
GND A11
GND B11
BR A12
BR B12
BR A13
BR B13
GND A14
GND B14
GND A15
GND B15
BG A16
BG B16
BG A17
BG B17
GND A18
GND B18
GND A19
GND B19
BB A20
BB B20
BB A21
BB B21
GND A22
GND B22
BH A23
BH B23
GND A24
GND B24
BV A25
BV B25
CN810
9P
WHT-L
1 AUDIO+B
2 AU GND
3 NC
4 L
5 GND
6 NC
7 R
8 GND
9 SP-MUTE
CN801
70P
CN801 TO BB
A1 CLP
B1 CLP
A2 GND
B2 GND
A3 A3.3V
B3 A3.3V
A4 V
B4 V
A5 GND
B5 GND
A6 H
B6 H
A7 GND
B7 GND
A8 B
B8 B
A9 GND
B9 GND
A10 G
B10 G
A11 GND
B11 GND
A12 R
B12 R
A13 GND
B13 GND
A14 AUDIO MUTE
B14 SCLK
A15 SDAT
B15 AUDIO CE
A16 GND
B16 GND
A17 US+
B17 US+
A18 US-
B18 US-
A19 GND
B19 USB P.FLG
A20 DS1+
B20 DS1-
A21 MS P.ENA
B21 US VBUS
A22 GND
B22 USB P.ENA
A23 SUB 5V
B23 SUB 5V
A24 SUB 5V
B24 SUB 5V
A25 SUB 5V
B25 SUB 5V
A26 GND
B26 GND
A27 BNC V
B27 BNC V
A28 GND
B28 GND
A29 BNC H
B29 BNC H
A30 GND
B30 GND
A31 BNC B
B31 BNC B
A32 GND
B32 GND
A33 BNC G
B33 BNC G
A34 GND
B34 GND
A35 BNC R
B35 BNC R
CN802
70P
IRD A A1
IRD B B1
GND A2
GND B2
DS2+ A3
DS2+ B3
DS2- A4
DS2- B4
YC/OTHER A5
CV/OTHER B5
GND A6
GND B6
R/R-Y A7
R/R-Y B7
GND A8
GND B8
G/Y A9
G/Y B9
GND A10
GND B10
B/B-Y A11
B/B-Y B11
GND A12
GND B12
H A13
H B13
GND A14
GND B14
V A15
V B15
GND A16
GND B16
RGBSYNC A17
RGBSYNC B17
GND A18
GND B18
V-R A19
V-R B19
GND A20
GND B20
V-G A21
V-G B21
GND A22
GND B22
V-B A23
V-B B23
GND A24
GND B24
V-HD A25
V-HD B25
V-VD A26
V-VD B26
GND A27
GND B27
V-CLP A28
V-CLP B28
GND A29
GND B29
SDA100K A30
SCL100K B30
GND A31
GND B31
+6V A32
+6V B32
+6V A33
+6V B33
+10V A34
-6V B34
+10V A35
-6V B35
CN806
50P
WHT
A1 AUDIO OL
B1 AUDIO OL
A2 AUDIO OL
B2 AUDIO OL
A3 GND
B3 GND
A4 GND
B4 GND
A5 AUDIO OR
B5 AUDIO OR
A6 AUDIO OR
B6 AUDIO OR
A7 GND
B7 GND
A8 GND
B8 GND
A9 OUT R
B9 OUT R
A10 OUT R
B10 OUT R
A11 GND
B11 GND
A12 GND
B12 GND
A13 OUT G
B13 OUT G
A14 OUT G
B14 OUT G
A15 GND
B15 GND
A16 GND
B16 GND
A17 OUT B
B17 OUT B
A18 OUT B
B18 OUT B
A19 GND
B19 GND
A20 GND
B20 GND
A21 OUT H
B21 OUT H
A22 OUT H
B22 OUT H
A23 GND
B23 GND
A24 OUT V
B24 OUT V
A25 OUT V
B25 OUT V
CN804
50P
WHT
INPUTA SW1 A1
GND B1
INPUTA SW2 A2
GND B2
GND A3
GND B3
USB DS+ A4
USB DS+ B4
USB DS+ A5
USB DS+ B5
GND A6
GND B6
GND A7
GND B7
USB DS- A8
USB DS- B8
USB DS- A9
USB DS- B9
GND A10
GND B10
GND A11
GND B11
USB 5V A12
USB 5V B12
USB 5V A13
USB 5V B13
USB 5V A14
USB 5V B14
SUB 5V A15
USB 5V B15
GND A16
GND B16
US VBUS A17
US VBUS B17
GND A18
GND B18
GND A19
GND B19
USB US+ A20
USB US+ B20
USB US+ A21
USB US+ B21
GND A22
GND B22
GND A23
GND B23
USB US- A24
USB US- B24
USB US- A25
USB US- B25
CN807
4P
WHT-L
S-SEL
1 L-VIDEO
2 GND
3 R-VIDEO
4 GND
H
CN3500
12P
WHT
:SMD
TO Y CN3001
12 D+5V
11 GND
10 D+5V
9 SUB+5V
8 GND
7 KEY1
6 KEY0
5 POWER LED
4 TEMP LED
3 LAMP LED
2 P.SAVE LED
1 LIGHT ON
TO SP
CN3502
2P
WHT-L
:SMD
1 L SP+
2 L SP-
CN3503
2P
WHT-L
:SMD
1 R SP+
2 R SP-
CN3501
4P
WHT
:SMD
TO KS CN2952
4 R SP-
3 R SP+
2 L SP-
1 L SP+
QB
CN1203
50P
WHT
IRD A A1
IRD A B1
MS5V A2
MS5V B2
DS2- A3
DS2- B3
DS2+ A4
DS2+ B4
GND A5
GND B5
AUDIO AL A6
AUDIO AL B6
GND A7
GND B7
GND A8
GND B8
AUDIO AR A9
AUDIO AR B9
GND A10
GND B10
GND A11
GND B11
AR A12
AR B12
AR A13
AR B13
GND A14
GND B14
GND A15
GND B15
AG A16
AG B16
AG A17
AG B17
GND A18
GND B18
GND A19
GND B19
AB A20
AB B20
AB A21
AB B21
GND A22
GND B22
AH A23
AH B23
GND A24
GND B24
AV A25
AV B25
CN1204
50P
WHT
INPUTA SW1 A1
GND B1
INPUTA SW2 A2
GND B2
GND A3
GND B3
USBD D+ A4
USBD D+ B4
USBD D+ A5
USBD D+ B5
GND A6
GND B6
GND A7
GND B7
USBD D- A8
USBD D- B8
USBD D- A9
USBD D- B9
GND A10
GND B10
GND A11
GND B11
USB 5V A12
USB 5V B12
USB 5V A13
USB 5V B13
USB 5V A14
USB 5V B14
SUB 5V A15
USB 5V B15
GND A16
GND B16
IN 5V A17
IN 5V B17
GND A18
GND B18
GND A19
GND B19
USBU D+ A20
USBU D+ B20
USBU D+ A21
USBU D+ B21
GND A22
GND B22
GND A23
GND B23
USBU D- A24
USBU D- B24
USBU D- A25
USBU D- B25
KS
CN2900
3P
WHT-L
:SMD
L/R 1
GND 2
SP-MUTE 3
CN2903
2P
WHT-L
:SMD
1 MAIN+
2 MAIN-
CN2901
2P
RED-L
:SMD
1 AUDIO+B
2 AUD GND
QC
CN1804
50P
WHT
IRD B A1
IRD B B1
SUB5V A2
SUB5V B2
GND A3
GND B3
GND A4
GND B4
GND A5
GND B5
AUDIO BL A6
AUDIO BL B6
GND A7
GND B7
GND A8
GND B8
AUDIO BR A9
AUDIO BR B9
GND A10
GND B10
GND A11
GND B11
BR A12
BR B12
BR A13
BR B13
GND A14
GND B14
GND A15
GND B15
BG A16
BG B16
BG A17
BG B17
GND A18
GND B18
GND A19
GND B19
BB A20
BB B20
BB A21
BB B21
GND A22
GND B22
BH A23
BH B23
GND A24
GND B24
BV A25
BV B25
CN1805
50P
WHT
AUDIO OL A1
AUDIO OL B1
AUDIO OL A2
AUDIO OL B2
GND A3
GND B3
GND A4
GND B4
AUDIO OR A5
AUDIO OR B5
AUDIO OR A6
AUDIO OR B6
GND A7
GND B7
GND A8
GND B8
OUT R A9
OUT R B9
OUT R A10
OUT R B10
GND A11
GND B11
GND A12
GND B12
OUT G A13
OUT G B13
OUT G A14
OUT G B14
GND A15
GND B15
GND A16
GND B16
OUT B A17
OUT B B17
OUT B A18
OUT B B18
GND A19
GND B19
GND A20
GND B20
OUT H A21
OUT H B21
OUT H A22
OUT H B22
GND A23
GND B23
OUT V A24
OUT V B24
OUT V A25
OUT V B25
NF
CN3600
3P
WHT-I
:SMD
1 SUB+5V
2 SIRCS-NF
3 GND
NR
CN3700
3P
RED
:SMD
1 SUB+5V
2 SIRCS-NF
3 GND
S
CN2020
3P
:SMD
LAMP COVER 1
GND 2
LAMP TEMP 3
U
CN1991
3P
1 SW COVER
2 GND
3 ECO /NOR
QD
CN1901
6P
1 C-VIDEO
2 GND
3
4 GND
5
6 GND
CN1902
4P
S-SEL
1 L-VIDEO
2 GND
3 R-VIDEO
4 GND
CN1903
7P
WHT
1 TXD_RD
2 RXD_RS
3 GND
4 SUB+5V
5 SIRCS
6 SIRCS_S
7 GND
Y
CN3001
12P
WHT
:SMD
12 D+5V
11 GND
10 D+5V
9 SUB+5V
8 GND
7 KEY1
6 KEY0
5 POWER LED
4 TEMP LED
3 LAMP LED
2 P.SAVE LED
1 LIGHT ON
CN3003
7P
WHT
:SMD
7 GND
6 SIRCS-S
5 SIRCS
4 SUB+5V
3 GND
2 RXD RS
1 TXD RS
CN3002
4P
WHT
:SMD
4 LAMP MODE
3 LAMP PROT
2 GND
1 LAMP ON
CN3010
8P
WHT
:SMD
GND 1
TXD 2
RXD 3
RES 4
VIN 5
FWR 6
MD1 7
MD2 8
CN3005
3P
WHT
:SMD
TO NF (CN3600)
3 GND
2 SIRCS-NF
1 SUB+5V
CN3006
3P
RED
:SMD
TO NR (CN3700)
3 GND
2 SIRCS-NR
1 SUB+5V
CN3007
3P
WHT
:SMD
3 LAMP TEMP
2 GND
1 LAMP COVER
CN3000
70P
A1 GND
B1 GND
A2 US+
B2 US-
A3 GND
B3 GND
A4 DS1+
B4 DS1-
A5 GND
B5 GND
A6 DS2+
B6 DS2-
A7 GND
B7 GND
A8 USB P.ENA
B8 USB P.FLG
A9 S/C RES
B9 MS P.ENA
A10 SDA400K
B10 SCL400K
A11 GND
B11 GND
A12 TXD S/C
B12 RXD S/C
A13 GND
B13 GND
A14 HD
B14 US VBUS
A15 VD
B15 VSO
A16 GND
B16 GND
A17 OSDC CS
B17 PW-OSD ENA
A18 P96
B18 P97
A19 P94
B19 PANEL LINK
A20 GND
B20 INTERLACE
A21 PIC MUTE
B21 SDAT
A22 SCLK
B22 GND
A23 AUDIO CE
B23 AUDIO MUTE
A24 PANEL TEMP
B24 IRDA
A25 IRDB
B25 FIL. COVER
A26 POWER ON
B26 FAN PROT1
A27 FAN CONT1
B27 FAN PROT2
A28 FAN CONT2
B28 POWER PROT
A29 GND
B29 GND
A30 SDA100K
B30 SCL100K
A31 GND
B31 GND
A32 +6V
B32 +6V
A33 +6V
B33 +6V
A34 SUB+5V
B34 SUB+5V
A35 SUB+5V
B35 SUB+5V
BA
CN102
6P
:SMD
CV 1
GND 2
Y (SVIDEO) 3
GND 4
C (SVIDEO) 5
GND 6
CN101
50P
R/R-Y A1
R/R-Y B1
GND A2
GND B2
G/Y A3
G/Y B3
GND A4
GND B4
B/B-Y A5
B/B-Y B5
GND A6
H B6
GND A7
V B7
GND A8
RGBSYNC B8
GND A9
V-CLP B9
GND A10
YC/OTHER B10
VR A11
VR B11
GND A12
GND B12
VG A13
VG B13
GND A14
GND B14
VB A15
VB B15
GND A16
CV/OTHER B16
GND A17
V-HD B17
GND A18
V-VD B18
GND A19
GND B19
SDA A20
SCL B20
GND A21
GND B21
+6V A22
+6V B22
+6V A23
+6V B23
+10V A24
GND B24
+10V A25
GND B25
GC
CN2500
8P
:B-TO-B
TO GA
SUB 1
SUB 2
SUB 3
GND 4
GND 5
GND 6
POWER ON 7
POWER PROT 8
CN2502
6P
WHT
:S-MICRO
TO BB
1 SUB5V
2 SUB5V
3 GND 2
4 GND 2
5 POWER ON
6 POWER PROT

B-SS1696<08 >-KESSENZU-P3

9-2. Schematic Diagrams and Printed Wiring Boards

Note:

- Parts marked " * " differ according to the model/destination. Refer to the mount table for each function.
- The parts marked " # " on schematic diagrams are not mounted.
- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- ▭ : fusible resistor
- ⧈ : nonflammable resistor
- ▭ : panel designation and adjustment for repair
- Caution when replacing chip parts
  New parts must be attached after removal of the chip.
  Be careful not to heat the minus side of a tantalum capacitor, because it is easily damaged by the heat.

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

[Measuring conditions, voltage and waveform]

- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal is received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal and RGB color bar signal are received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- Unit of voltage is V (volt).
- V : B+line
  V : B– line
- Voltage variations may occur due to normal production tolerances.
- No mark : NTSC (3.58 MHz) color bar signal.
- [ ] : RGB color bar signal is received.
- ★ : Measurement disabled.
- Circled numbers indicate the reference waveform.
- ⇨ : Signal path.

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

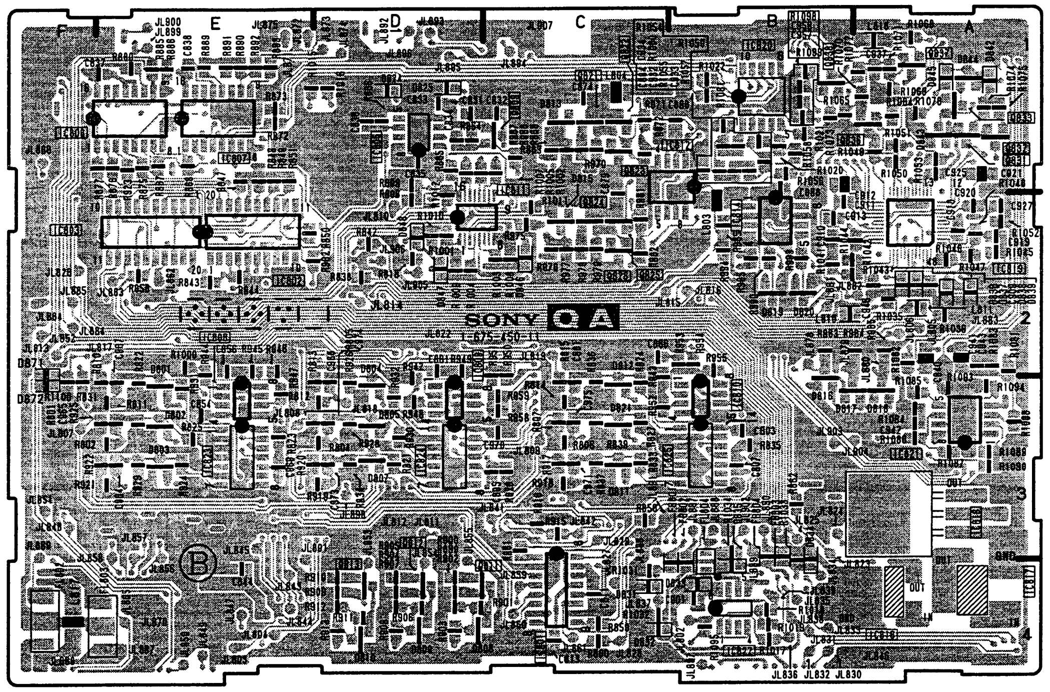
QA QA

QA

1-675-450-11

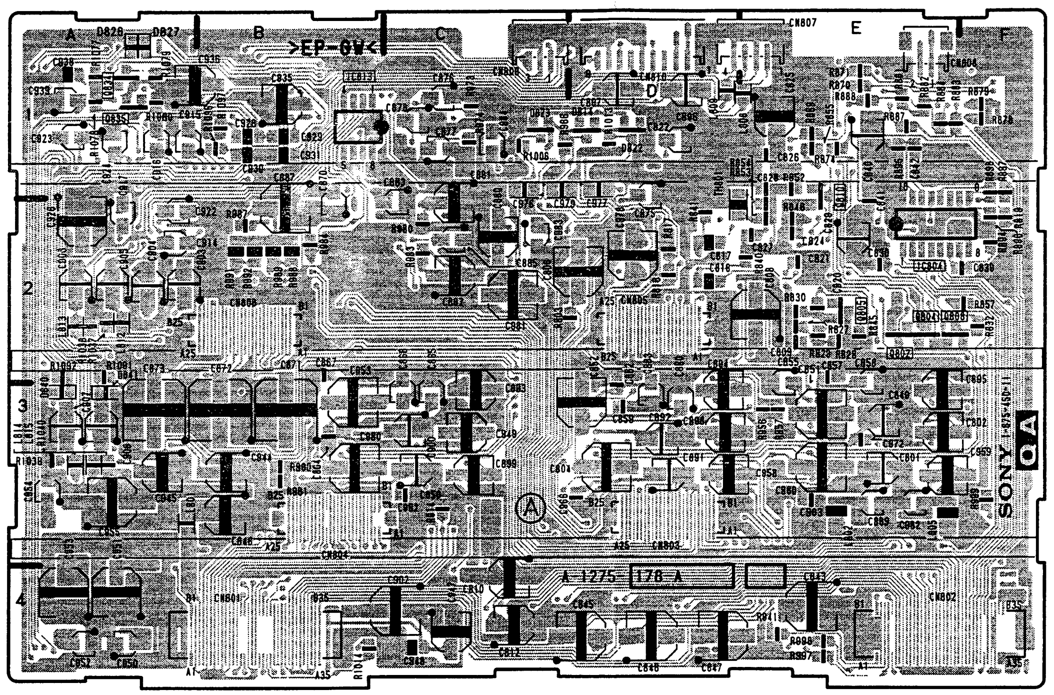
IC801	*C-4
IC802	*E-2
IC803	*F-2
IC804	E-2
IC805	*D-1
IC806	*F-1
IC807	*E-1
IC808	*E-2
IC809	*D-2
IC810	*B-3
IC811	*C-2
IC812	*B-1
IC813	B-1
IC814	*B-2
IC816	*A-4
IC817	*A-4
IC818	*A-3
IC819	*A-2
IC820	*B-1
IC821	*A-3
IC822	*B-4
IC823	*E-3
IC824	*D-3
IC825	*B-3
Q802	E-2
Q804	E-2
Q805	E-2
Q808	E-2
Q809	*C-1
Q810	E-2
Q811	*C-4
Q812	*D-3
Q813	*D-4
Q821	*C-1
Q822	*C-1
Q823	*C-1
Q824	*C-2
Q825	*C-2
Q826	*C-2
Q831	*A-1
Q832	*A-1
Q833	*A-1
Q834	A-1
Q835	A-1
Q836	*B-1
Q837	*A-1
Q838	*B-1

*:B Side mount


F
E
D
C
B
A
1
2
3
4
SONY QA
1-675-450-11

QA – B SIDE –

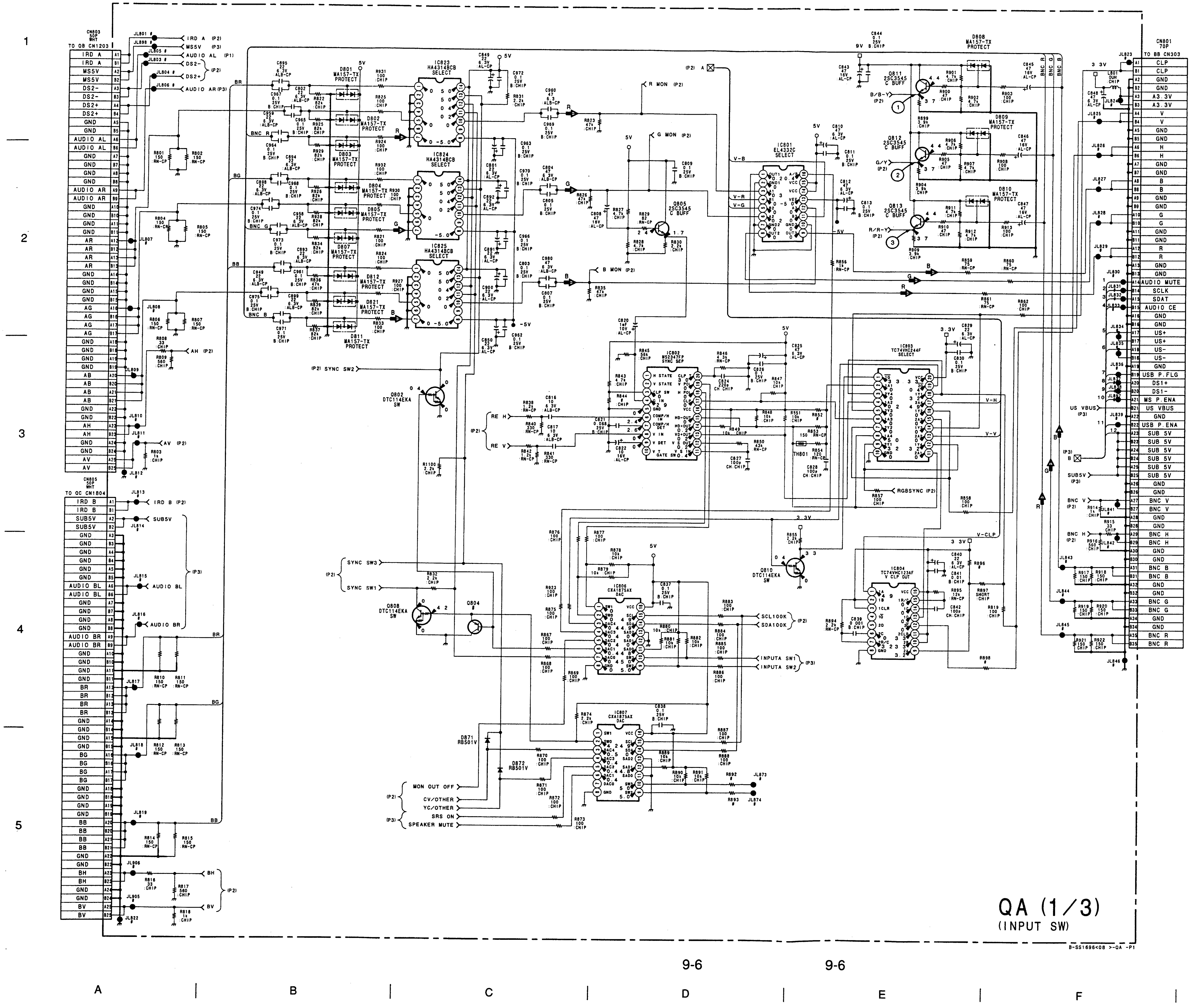
SUFFIX ; -11


A
B
C
D
E
F
1
2
3
4
>EP-GV<
SONY QA
A-1275-178-A

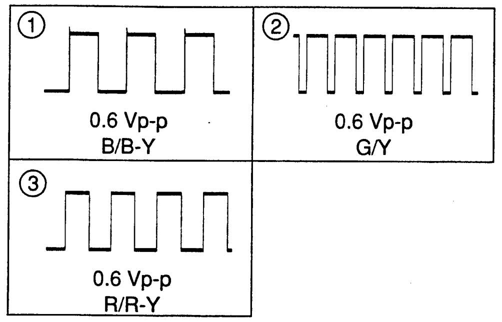
QA – A SIDE –

SUFFIX ; -11

- Refer to page 9-5 for Printed Wiring Board
- Refer to page 9-9 for IC Block Diagrams

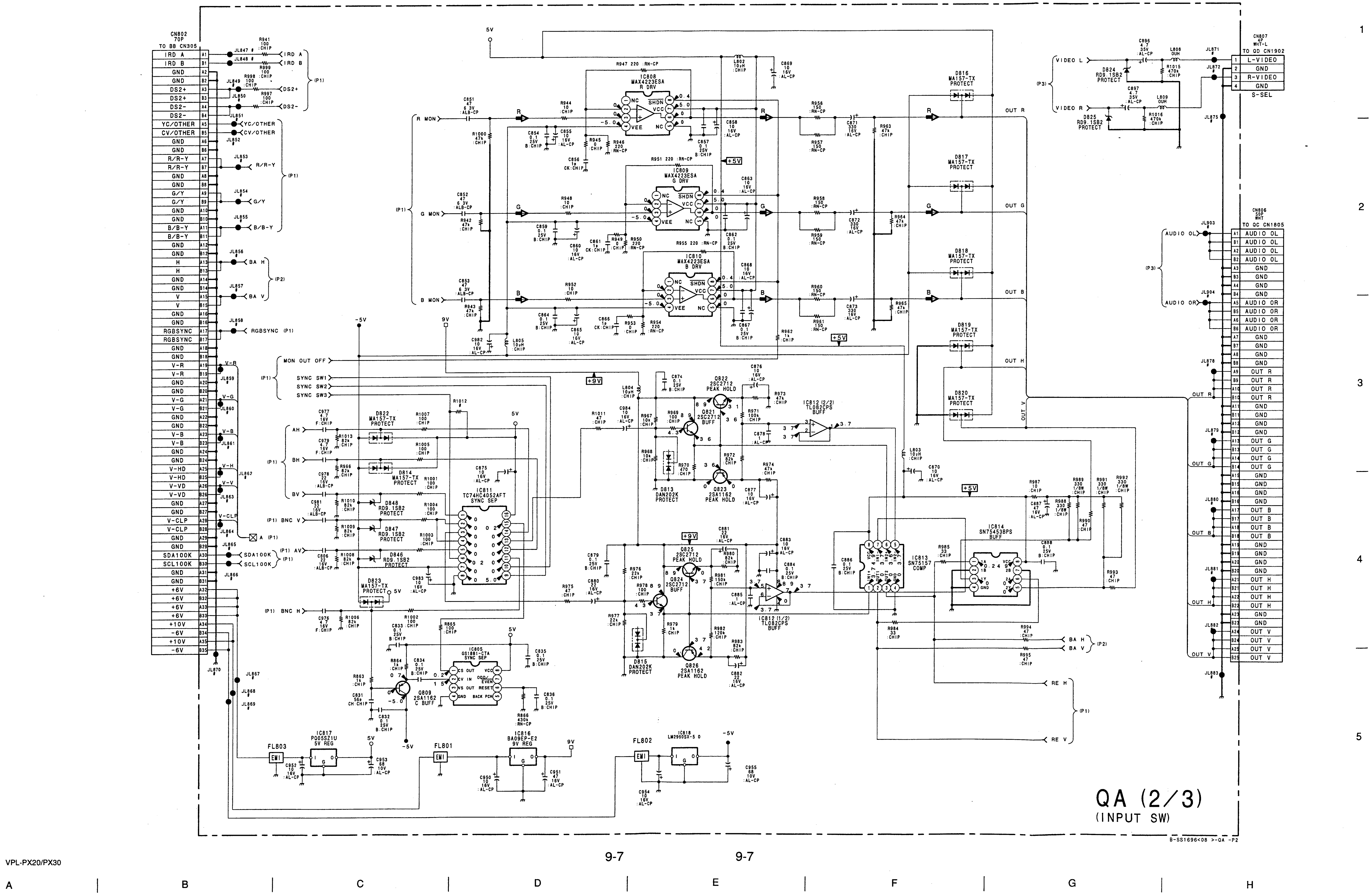

1
2
3
4
5
CN803 50P WHT TO QB CN1203
IRD A
IRD A
MS5V
MS5V
DS2-
DS2-
DS2+
DS2+
GND
GND
AUDIO AL
AUDIO AL
GND
GND
GND
GND
AUDIO AR
AUDIO AR
GND
GND
GND
GND
AR
AR
AR
AR
GND
GND
GND
GND
AG
AG
AG
AG
GND
GND
GND
GND
AB
AB
AB
AB
GND
GND
AH
AH
GND
GND
AV
AV
CN805 50P WHT TO QC CN1804
IRD B
IRD B
SUB5V
SUB5V
GND
GND
GND
GND
GND
GND
AUDIO BL
AUDIO BL
GND
GND
GND
GND
AUDIO BR
AUDIO BR
GND
GND
GND
GND
BR
BR
BR
BR
GND
GND
GND
GND
BG
BG
BG
BG
GND
GND
GND
GND
BB
BB
BB
BB
GND
GND
BH
BH
GND
GND
BV
BV
IRD A (P2)
MS5V (P3)
AUDIO AL (P1)
DS2-
DS2+ (P2)
AUDIO AR (P3)
AH (P2)
AV (P2)
IRD B (P2)
SUB5V
AUDIO BL
AUDIO BR (P3)
BH
BV (P2)
IC823 HA4314BCB SELECT
IC824 HA4314BCB SELECT
IC825 HA4314BCB SELECT
MA157-TX PROTECT
R MON (P2)
G MON (P2)
B MON (P2)
Q805 2SC3545 C BUFF
IC801 EL4332C SELECT
D808 MA157-TX PROTECT
D809 MA157-TX PROTECT
D810 MA157-TX PROTECT
Q811 2SC3545 C BUFF
Q812 2SC3545 C BUFF
Q813 2SC3545 C BUFF
B/B-Y (P2)
G/Y (P2)
R/R-Y (P2)
(P2) SYNC SW2
Q802 DTC114EKA SW
RE H
RE V
(P2)
IC802 M52347FP SYNC SEP
IC803 TC74VHC244F SELECT
RGBSYNC (P2)
Q810 DTC114EKA SW
IC804 TC74VHC123AF V CLP OUT
V-CLP
SYNC SW3
SYNC SW1
Q808 DTC114EKA SW
Q804
IC806 CXA1875AX DAC
SCL100K
SDA100K
INPUTA SW1
INPUTA SW2
(P3)
IC807 CXA1875AX DAC
D871 RB501V
D872 RB501V
MON OUT OFF
CV/OTHER
YC/OTHER
SRS ON
SPEAKER MUTE
CN801 70P TO BB CN303
CLP
CLP
GND
GND
A3.3V
A3.3V
V
V
GND
GND
H
H
GND
GND
B
B
GND
GND
G
G
GND
GND
R
R
GND
GND
AUDIO MUTE
SCLK
SDAT
AUDIO CE
GND
GND
US+
US+
US-
US-
GND
USB P.FLG
DS1+
DS1-
MS P.ENA
US VBUS
GND
USB P.ENA
SUB 5V
SUB 5V
SUB 5V
SUB 5V
SUB 5V
SUB 5V
GND
GND
BNC V
BNC V
GND
GND
BNC H
BNC H
GND
GND
BNC B
BNC B
GND
GND
BNC G
BNC G
GND
GND
BNC R
BNC R
US VBUS (P3)
SUB5V (P3)
BNC V (P2)
BNC H (P2)
QA (1/3)
(INPUT SW)

QA Board Waveforms

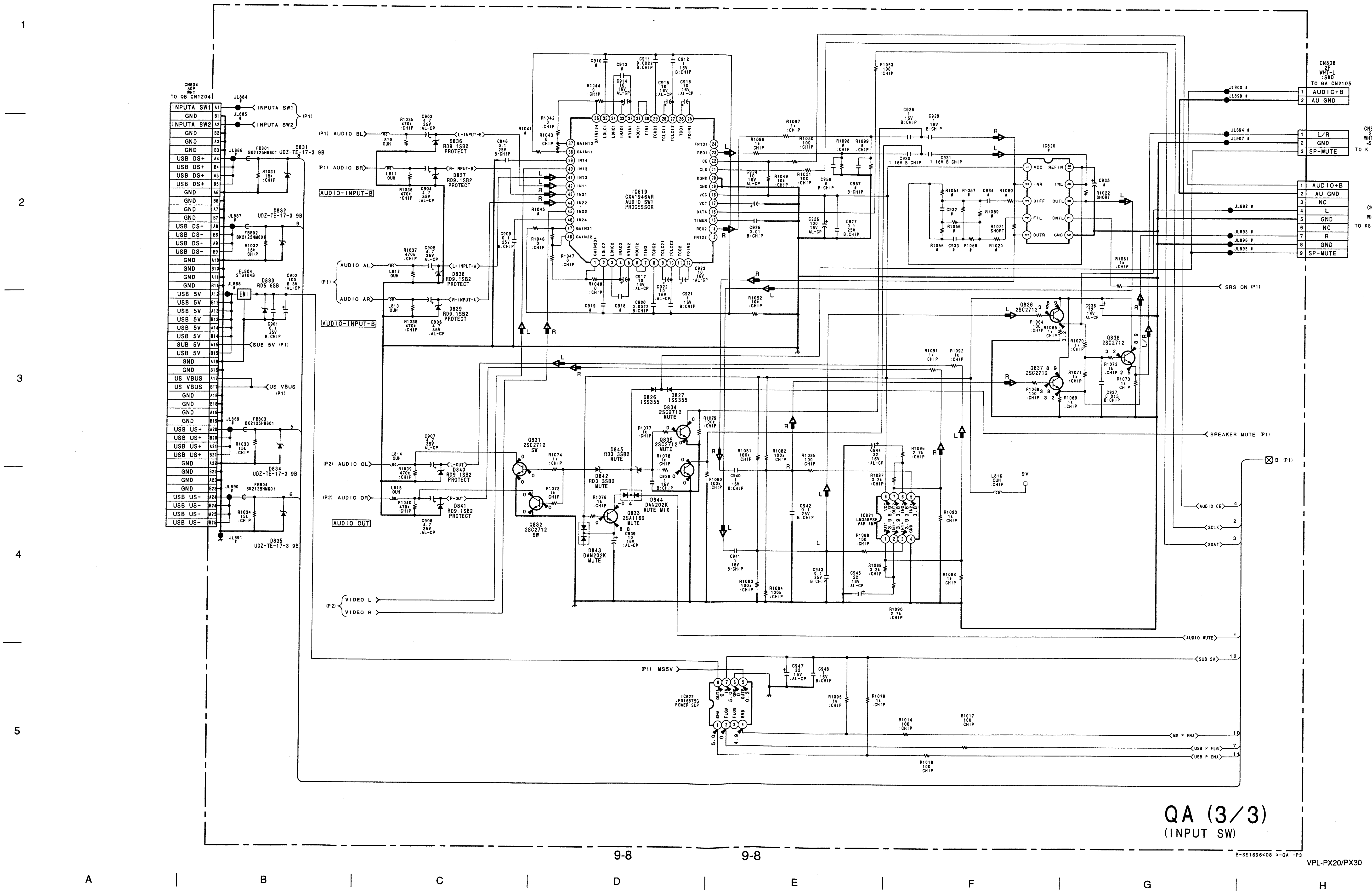


A | B | C | D | E | F | G | H

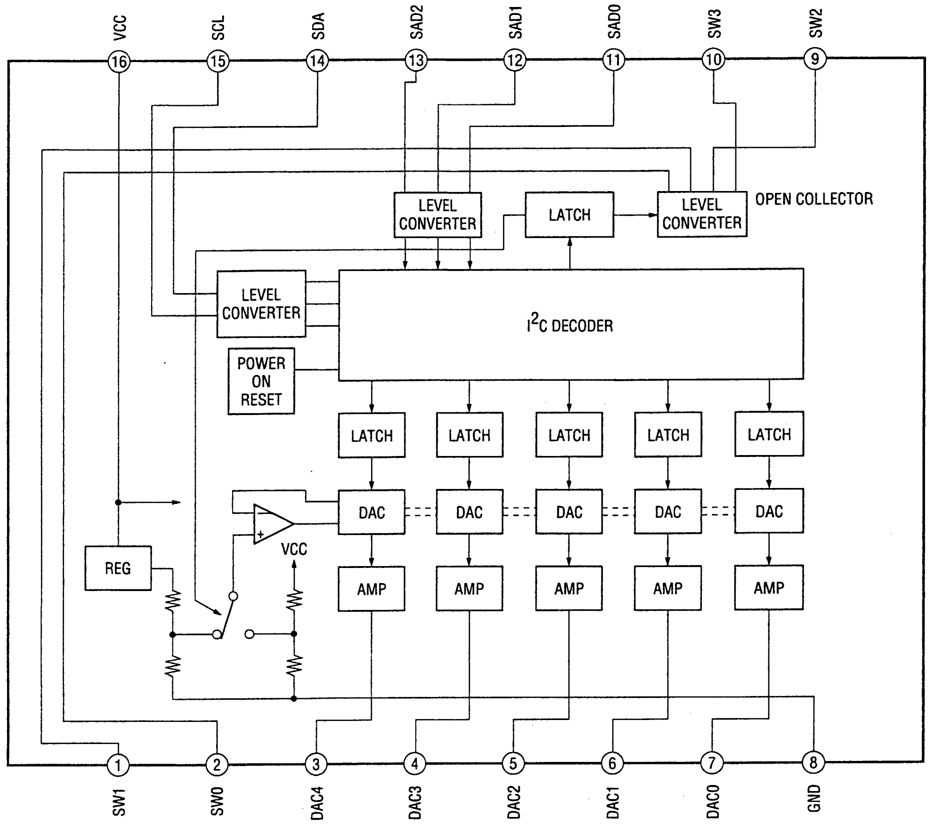
- Refer to page 9-5 for Printed Wiring Board
- Refer to page 9-9 for IC Block Diagrams


CN802 70P TO BB CN305
IRD A
IRD B
GND
DS2+
DS2-
YC/OTHER
CV/OTHER
R/R-Y
G/Y
B/B-Y
H
V
RGBSYNC
V-R
V-G
V-B
V-HD
V-VD
V-CLP
SDA100K
SCL100K
+6V
+10V
-6V
MON OUT OFF
SYNC SW1
SYNC SW2
SYNC SW3
R MON
G MON
B MON
IC808 MAX4223ESA R DRV
IC809 MAX4223ESA G DRV
IC810 MAX4223ESA B DRV
D816 MA157-TX PROTECT
D817 MA157-TX PROTECT
D818 MA157-TX PROTECT
D819 MA157-TX PROTECT
D820 MA157-TX PROTECT
OUT R
OUT G
OUT B
OUT H
OUT V
IC811 TC74HC4052AFT SYNC SEP
D822 MA157-TX PROTECT
D814 MA157-TX PROTECT
D848 RD9.1SB2 PROTECT
D847 RD9.1SB2 PROTECT
D846 RD9.1SB2 PROTECT
D823 MA157-TX PROTECT
BNC V
BNC H
IC805 GS1881-CTA SYNC SEP
Q809 2SA1162 C BUFF
Q822 2SC2712 PEAK HOLD
Q821 2SC2712 BUFF
Q823 2SA1162 PEAK HOLD
D813 DAN202K PROTECT
IC812 (2/2) TL082CPS BUFF
Q825 2SC2712 PEAK HOLD
Q824 2SC2712 BUFF
Q826 2SA1162 PEAK HOLD
D815 DAN202K PROTECT
IC812 (1/2) TL082CPS BUFF
IC813 SN75157 COMP
IC814 SN75453BPS BUFF
BA H
BA V
RE H
RE V
IC817 PQ05SZ1U 5V REG
IC816 BA09EP-E2 9V REG
IC818 LM2990SX-5.0
FL803
FL801
FL802
5V
9V
-5V
+5V
+9V
VIDEO L
VIDEO R
D824 RD9.1SB2 PROTECT
D825 RD9.1SB2 PROTECT
CN807 4P WHT-L TO QD CN1902
L-VIDEO
GND
R-VIDEO
S-SEL
CN806 50P WHT TO QC CN1805
AUDIO OL
AUDIO OR
OUT R
OUT G
OUT B
OUT H
OUT V
(P1)
(P2)
(P3)
QA (2/3)
(INPUT SW)
B-SS1696<08>-QA-P2
1
2
3
4
5
A
B
C
D
E
F
G
H

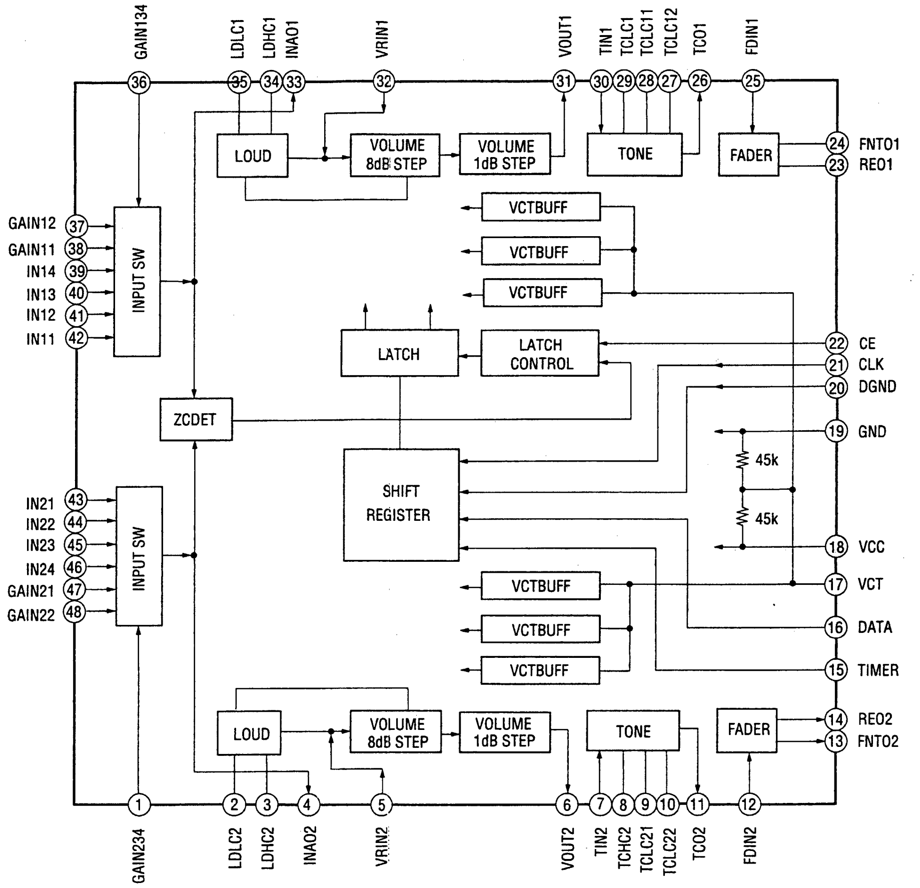
- Refer to page 9-5 for Printed Wiring Board
- Refer to page 9-9 for IC Block Diagrams


1
2
3
4
5
A
B
C
D
E
F
G
H
CN804 50P WHT TO QB CN1204
INPUTA SW1
INPUTA SW2
GND
USB DS+
USB DS-
USB 5V
SUB 5V
US VBUS
USB US+
USB US-
INPUTA SW1
INPUTA SW2
(P1)
SUB 5V (P1)
US VBUS (P1)
EMI
FB801 BK2125HM601
FB802 BK2125HM601
FB803 BK2125HM601
FB804 BK2125HM601
FL804 STS104B
D831 UDZ-TE-17-3 9B
D832 UDZ-TE-17-3 9B
D833 RD5 6SB
D834 UDZ-TE-17-3 9B
D835 UDZ-TE-17-3 9B
(P1) AUDIO BL
(P1) AUDIO BR
AUDIO-INPUT-B
(P1) AUDIO AL
AUDIO AR
AUDIO-INPUT-B
L-INPUT-B
R-INPUT-B
L-INPUT-A
R-INPUT-A
D836 RD9 1SB2 PROTECT
D837 RD9 1SB2 PROTECT
D838 RD9 1SB2 PROTECT
D839 RD9 1SB2 PROTECT
(P2) AUDIO OL
(P2) AUDIO OR
AUDIO OUT
L-OUT
R-OUT
D840 RD9 1SB2 PROTECT
D841 RD9 1SB2 PROTECT
(P2) VIDEO L
VIDEO R
IC819 CXA1946AR AUDIO SW1 PROCESSOR
Q831 2SC2712 SW
Q832 2SC2712 SW
Q833 2SA1162 MUTE
Q834 2SC2712 MUTE
Q835 2SC2712 MUTE
D826 1SS355
D827 1SS355
D842 RD3 3SB2 MUTE
D843 DAN202K MUTE
D844 DAN202K MUTE MIX
D845 RD3 3SB2 MUTE
IC820
IC821 LM358PSR VAR AMP
IC822 µPD16875G POWER SUP
Q836 2SC2712
Q837 2SC2712
Q838 2SC2712
L816 OUH
9V
CN808 2P WHT-L SMD TO GA CN2105
AUDIO+B
AU GND
CN809 3P WHT-L SMD TO K CN2900
L/R
GND
SP-MUTE
CN810 9P WHT-L TO KS CN2951
AUDIO+B
AU GND
NC
L
GND
NC
R
GND
SP-MUTE
SRS ON (P1)
SPEAKER MUTE (P1)
B (P1)
AUDIO CE
SCLK
SDAT
AUDIO MUTE
SUB 5V
(P1) MS5V
MS P ENA
USB P FLG
USB P ENA
QA (3/3)
(INPUT SW)
B-SS1696<08 >-QA -P3

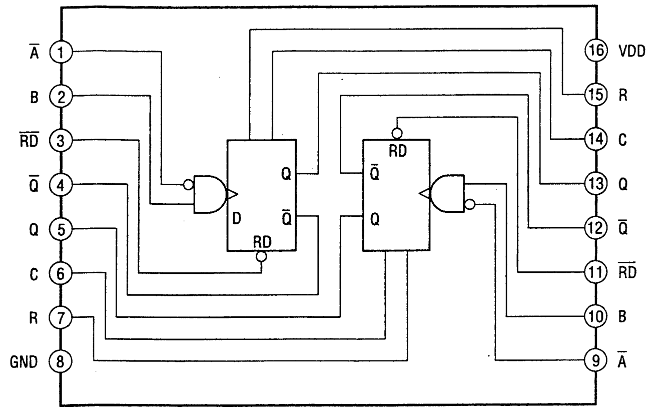
CXA1875AM-T4 (IC806, IC807)


VCC
SCL
SDA
SAD2
SAD1
SAD0
SW3
SW2
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
OPEN COLLECTOR
LEVEL CONVERTER
I²C DECODER
POWER ON RESET
LATCH
DAC
AMP
REG
VCC
SW1
SW0
DAC4
DAC3
DAC2
DAC1
DAC0
GND

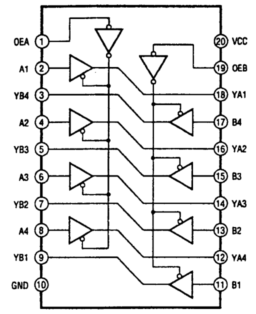
CXA1946AR (IC819)


GAIN134
LDLC1
LDHC1
INAO1
VRIN1
VOUT1
TIN1
TCLC1
TCLC11
TCLC12
TCO1
FDIN1
LOUD
VOLUME 8dB STEP
VOLUME 1dB STEP
TONE
FADER
FNTO1
REO1
VCTBUFF
GAIN12
GAIN11
IN14
IN13
IN12
IN11
INPUT SW
LATCH
LATCH CONTROL
CE
CLK
DGND
ZCDET
SHIFT REGISTER
GND
45k
45k
VCC
VCT
DATA
TIMER
IN21
IN22
IN23
IN24
GAIN21
GAIN22
REO2
FNTO2
GAIN234
LDLC2
LDHC2
INAO2
VRIN2
VOUT2
TIN2
TCHC2
TCLC21
TCLC22
TCO2
FDIN2

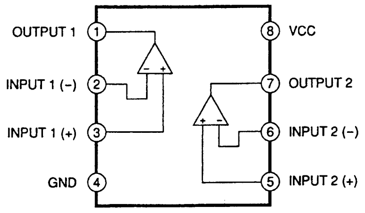
TC74VHC123AF (EL) (IC804)


A̅
B
RD̅
Q̅
Q
C
R
GND
VDD
R
C
Q
Q̅
RD̅
B
A̅
RD
D
Q
Q̅

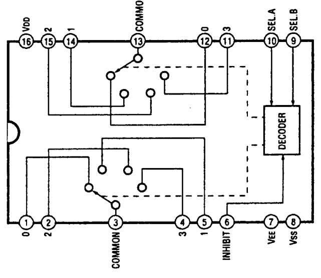
TC74VHC244F (EL) (IC803)


OEA
A1
YB4
A2
YB3
A3
YB2
A4
YB1
GND
VCC
OEB
YA1
B4
YA2
B3
YA3
B2
YA4
B1

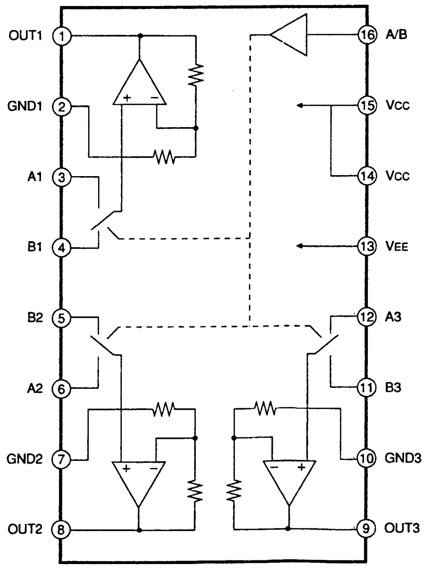
LM358PSR (IC821)


OUTPUT 1
INPUT 1 (–)
INPUT 1 (+)
GND
VCC
OUTPUT 2
INPUT 2 (–)
INPUT 2 (+)

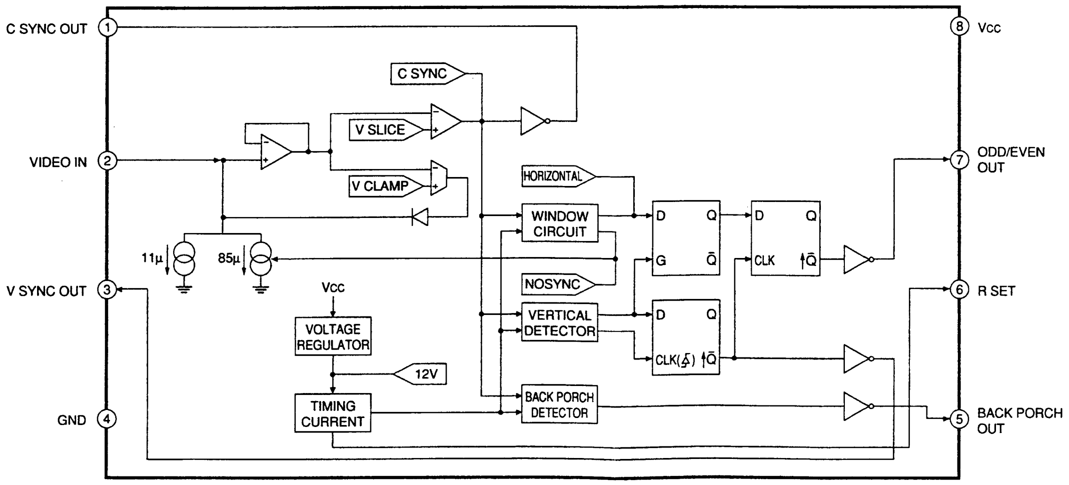
MC75HC4052AFT (EL) (IC811)


VDD
2
1
COMMON
0
3
SEL.A
SEL.B
DECODER
0
2
COMMON
3
1
INHIBIT
VEE
Vss

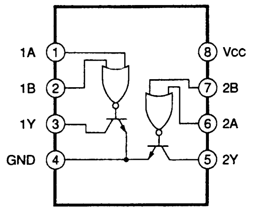
EL4332CS-TE2 (IC801)


OUT1
GND1
A1
B1
B2
A2
GND2
OUT2
A/B
Vcc
Vcc
VEE
A3
B3
GND3
OUT3

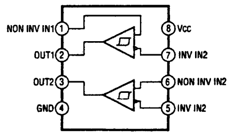
GS1881-CTA (IC805)

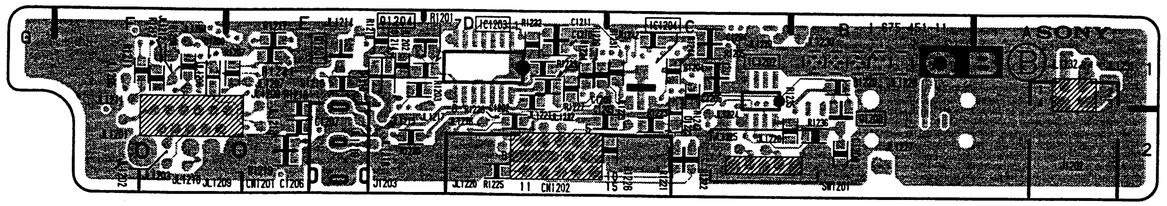

C SYNC OUT
VIDEO IN
V SYNC OUT
GND
Vcc
ODD/EVEN OUT
R SET
BACK PORCH OUT
C SYNC
V SLICE
V CLAMP
HORIZONTAL
WINDOW CIRCUIT
NOSYNC
VERTICAL DETECTOR
BACK PORCH DETECTOR
11µ
85µ
Vcc
VOLTAGE REGULATOR
12V
TIMING CURRENT
D Q
G Q̅
CLK ↑Q̅
CLK(∫) ↑Q̅

SN75453BPSR (IC814)


1A
1B
1Y
GND
Vcc
2B
2A
2Y

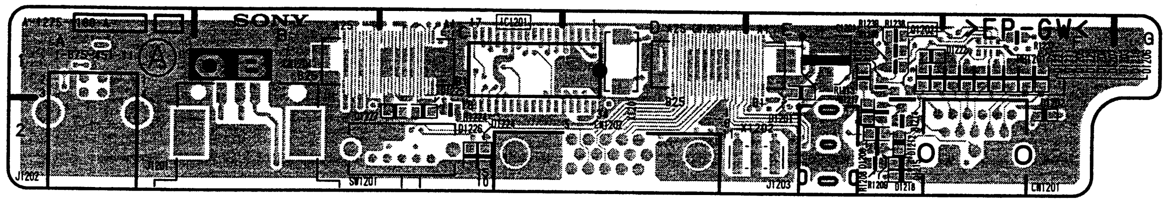
SN75157PS-ELL2000 (IC813)


NON INV IN1
OUT1
OUT2
GND
Vcc
INV IN2
NON INV IN2
INV IN2



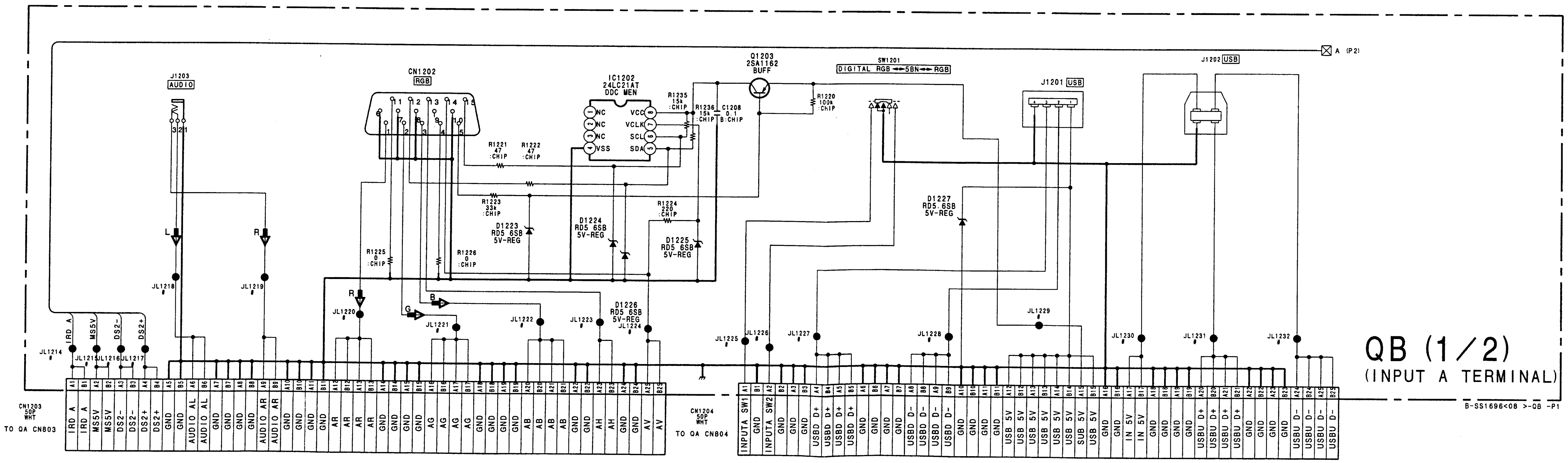
QB – B SIDE –

SUFFIX ; -11



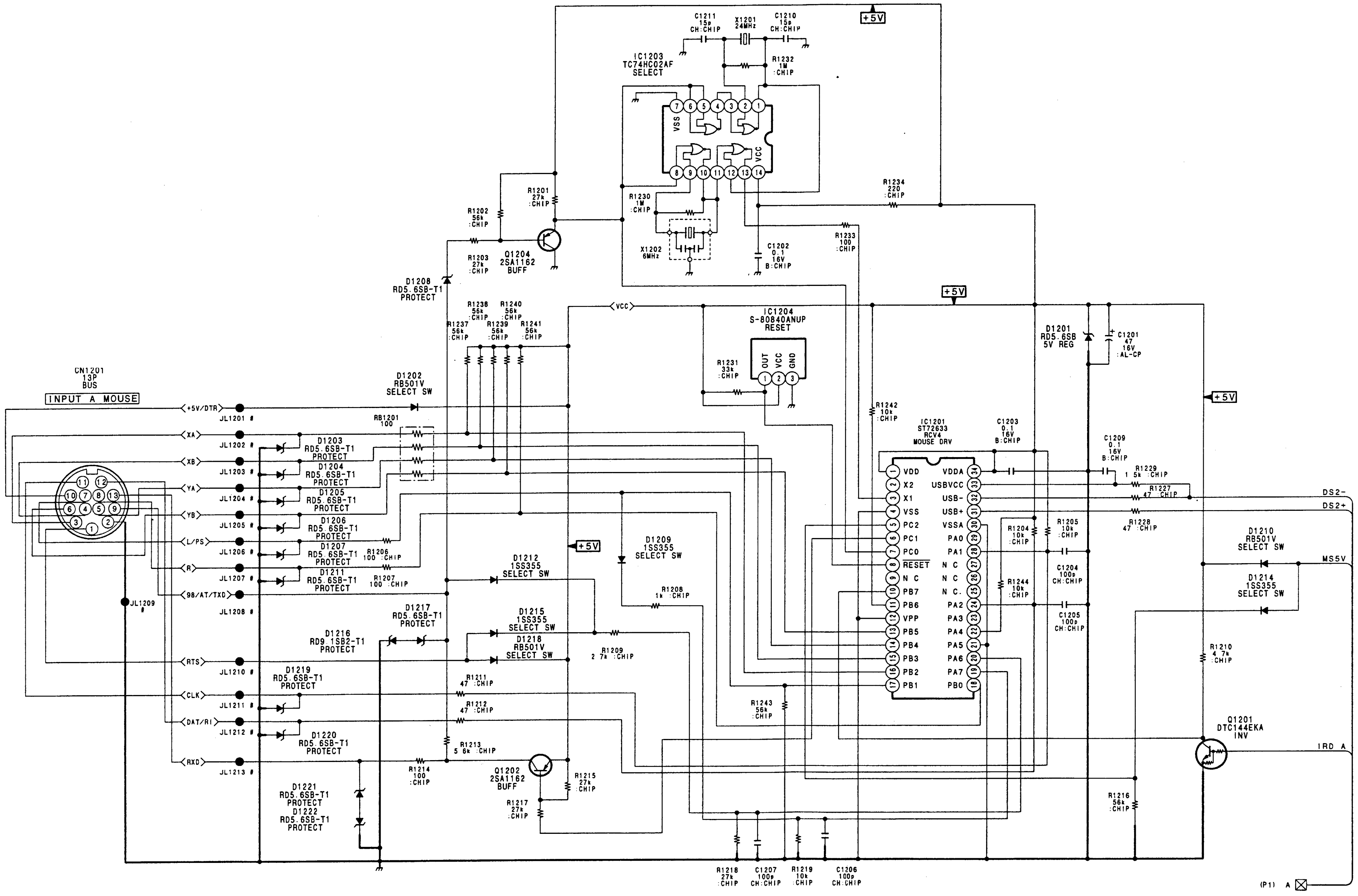
QB – A SIDE –

SUFFIX ; -11


J1203 AUDIO
CN1202 RGB
IC1202 24LC21AT DDC MEM
Q1203 2SA1162 BUFF
SW1201 DIGITAL RGB SBN RGB
J1201 USB
J1202 USB
A (P2)
R1221 47 :CHIP
R1222 47 :CHIP
R1223 33k :CHIP
R1224 220 :CHIP
R1225 0 :CHIP
R1226 0 :CHIP
R1235 15k :CHIP
R1236 15k :CHIP
R1220 100k :CHIP
C1208 0.1 B:CHIP
D1223 RD5.6SB 5V-REG
D1224 RD5.6SB 5V-REG
D1225 RD5.6SB 5V-REG
D1226 RD5.6SB 5V-REG
D1227 RD5.6SB 5V-REG
CN1203 50P WHT TO QA CN803
CN1204 50P WHT TO QA CN804
B-SS1696<08 >-QB -P1

QB (1/2)
(INPUT A TERMINAL)

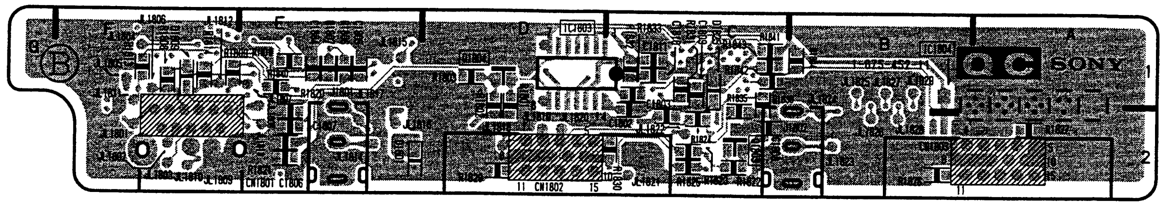
- Refer to page 9-10 for Printed Wiring Board


C1211
15p
CH:CHIP
X1201
24MHz
C1210
15p
CH:CHIP
+5V
IC1203
TC74HC02AF
SELECT
R1232
1M
:CHIP
VSS
VCC
R1201
27k
:CHIP
R1202
56k
:CHIP
R1203
27k
:CHIP
Q1204
2SA1162
BUFF
R1230
1M
:CHIP
X1202
6MHz
C1202
0.1
16V
B:CHIP
R1234
220
:CHIP
R1233
100
:CHIP
D1208
RD5.6SB-T1
PROTECT
R1238
56k
:CHIP
R1240
56k
:CHIP
R1237
56k
:CHIP
R1239
56k
:CHIP
R1241
56k
:CHIP
VCC
IC1204
S-80840ANUP
RESET
OUT
VCC
GND
R1231
33k
:CHIP
+5V
D1201
RD5.6SB
5V REG
C1201
47
16V
:AL-CP
CN1201
13P
BUS
INPUT A MOUSE
D1202
RB501V
SELECT SW
+5V/DTR
JL1201 #
RB1201
100
XA
JL1202 #
D1203
RD5.6SB-T1
PROTECT
XB
JL1203 #
D1204
RD5.6SB-T1
PROTECT
YA
JL1204 #
D1205
RD5.6SB-T1
PROTECT
YB
JL1205 #
D1206
RD5.6SB-T1
PROTECT
L/PS
JL1206 #
D1207
RD5.6SB-T1
PROTECT
R1206
100 :CHIP
R
JL1207 #
D1211
RD5.6SB-T1
PROTECT
R1207
100 :CHIP
98/AT/TXD
JL1208 #
JL1209
#
R1242
10k
:CHIP
IC1201
ST72633
RCV4
MOUSE DRV
C1203
0.1
16V
B:CHIP
VDD
X2
X1
VSS
PC2
PC1
PC0
RESET
N C
PB7
PB6
VPP
PB5
PB4
PB3
PB2
PB1
VDDA
USBVCC
USB-
USB+
VSSA
PA0
PA1
N C
N C
N C.
PA2
PA3
PA4
PA5
PA6
PA7
PB0
C1209
0.1
16V
B:CHIP
R1229
1 5k :CHIP
R1227
47 :CHIP
R1228
47 :CHIP
DS2-
DS2+
R1204
10k
:CHIP
R1205
10k
:CHIP
C1204
100p
CH:CHIP
R1244
10k
:CHIP
C1205
100p
CH:CHIP
+5V
D1210
RB501V
SELECT SW
MS5V
D1214
1SS355
SELECT SW
+5V
D1209
1SS355
SELECT SW
D1212
1SS355
SELECT SW
R1208
1k :CHIP
D1217
RD5.6SB-T1
PROTECT
D1215
1SS355
SELECT SW
D1216
RD9.1SB2-T1
PROTECT
D1218
RB501V
SELECT SW
R1209
2 7k :CHIP
RTS
JL1210 #
D1219
RD5.6SB-T1
PROTECT
R1211
47 :CHIP
CLK
JL1211 #
R1212
47 :CHIP
DAT/RI
JL1212 #
D1220
RD5.6SB-T1
PROTECT
R1213
5 6k :CHIP
RXD
JL1213 #
R1214
100
:CHIP
Q1202
2SA1162
BUFF
R1215
27k
:CHIP
R1217
27k
:CHIP
D1221
RD5.6SB-T1
PROTECT
D1222
RD5.6SB-T1
PROTECT
R1243
56k
:CHIP
R1210
4 7k
:CHIP
Q1201
DTC144EKA
INV
IRD A
R1216
56k
:CHIP
R1218
27k
:CHIP
C1207
100p
CH:CHIP
R1219
10k
:CHIP
C1206
100p
CH:CHIP
(P1) A

QB (2/2)

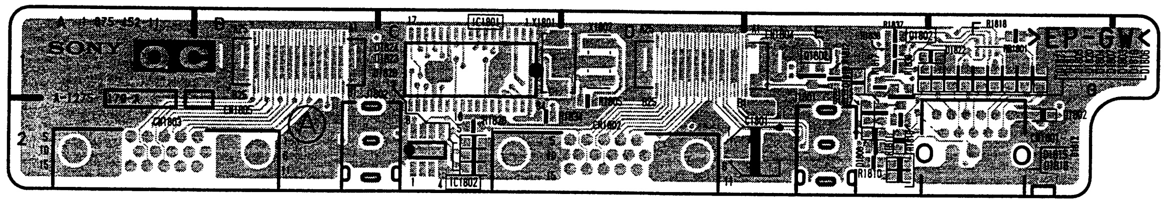
(INPUT A MOUS TERMINAL, MOUS DRV.)

B-SS1696<08 >-QB -P2



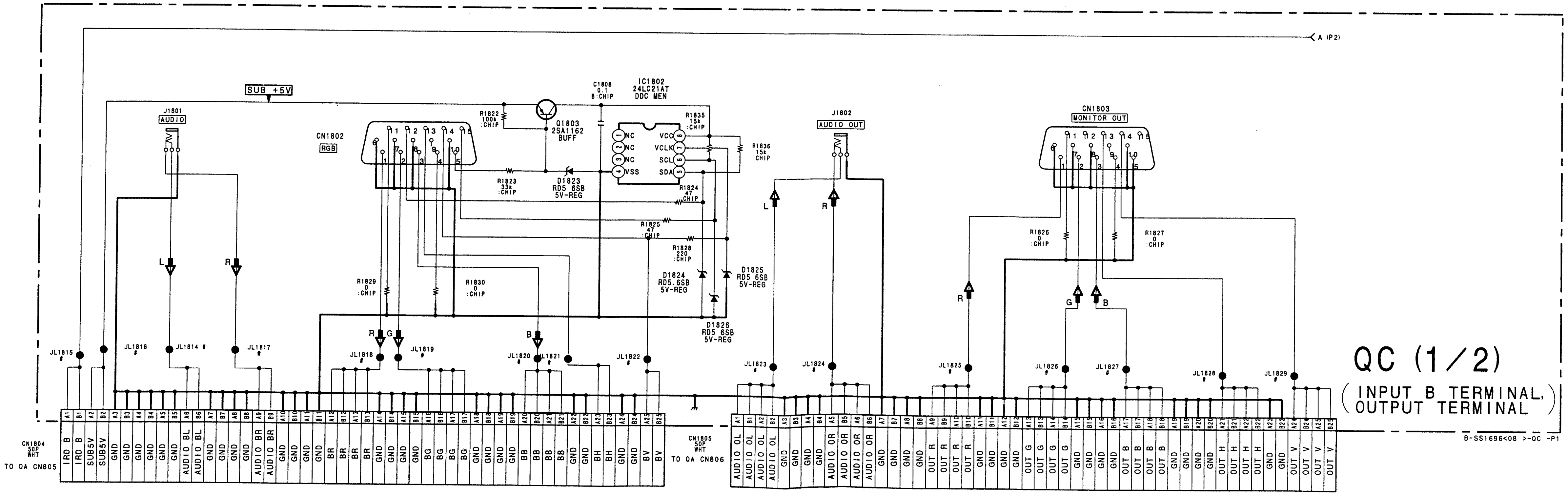
QC – B SIDE –

SUFFIX ; -11

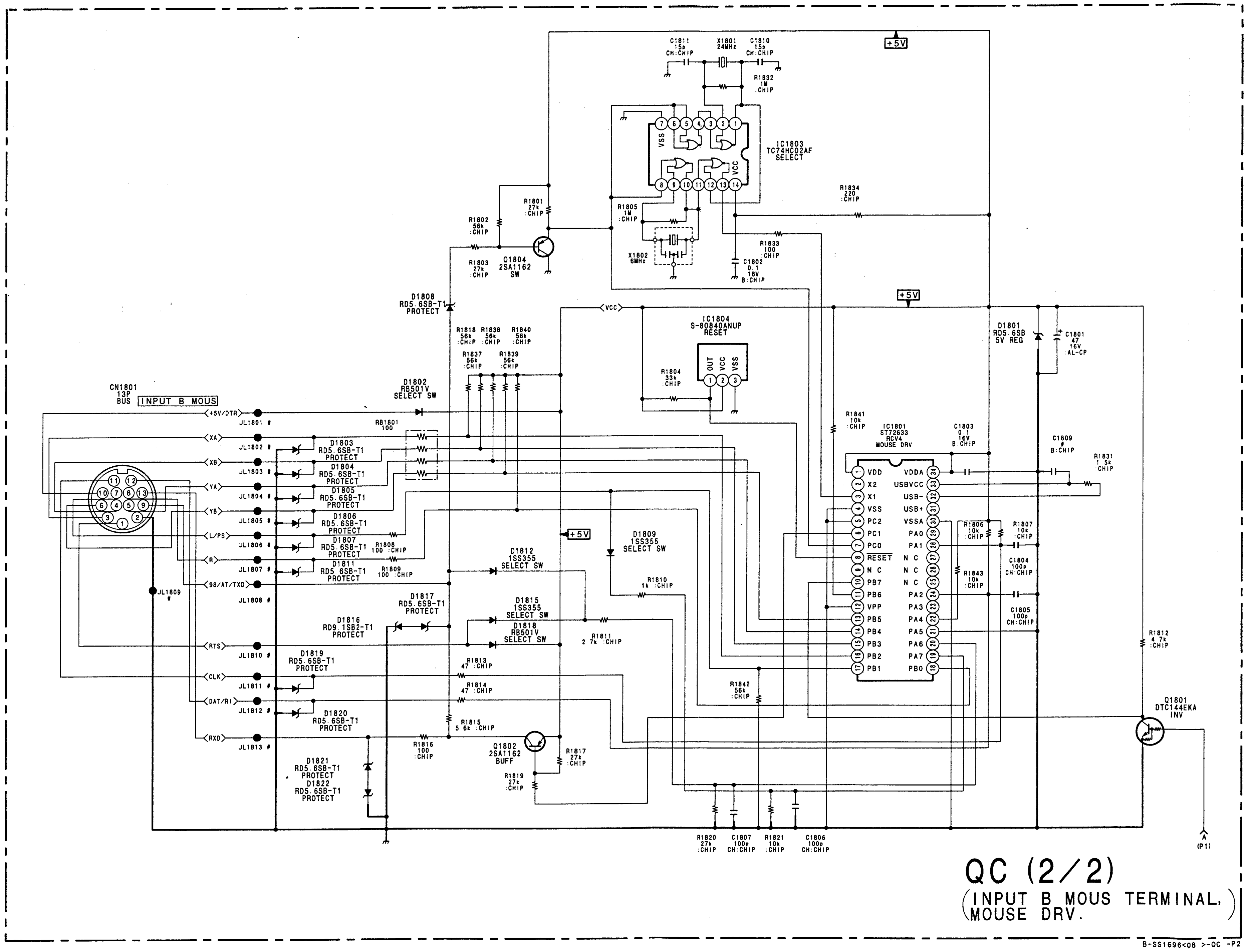


QC – A SIDE –

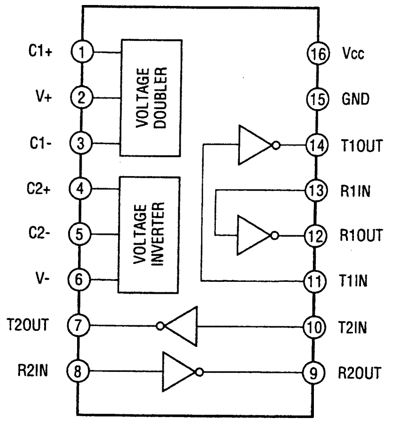
SUFFIX ; -11


QC (1/2)
(INPUT B TERMINAL, OUTPUT TERMINAL)
A (P2)
SUB +5V
J1801 AUDIO
CN1802 RGB
Q1803 2SA1162 BUFF
IC1802 24LC21AT DDC MEN
J1802 AUDIO OUT
CN1803 MONITOR OUT
CN1804 50P WHT TO QA CN805
CN1805 50P WHT TO QA CN806
B-SS1696<08 >-QC -P1

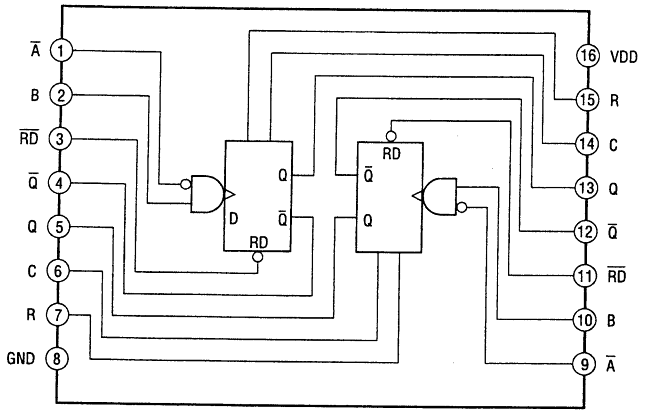
- Refer to page 9-12 for Printed Wiring Board

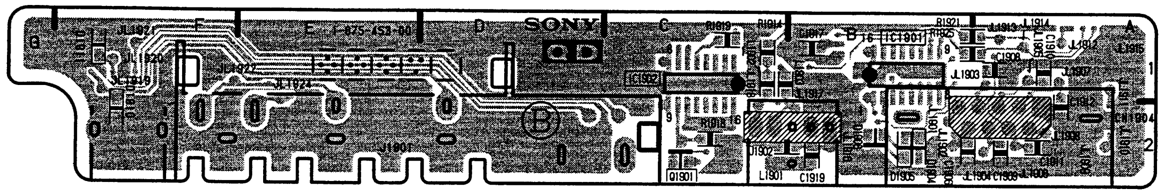

C1811
15p
CH:CHIP
X1801
24MHz
C1810
15p
CH:CHIP
+5V
R1832
1M
:CHIP
VSS
VCC
IC1803
TC74HC02AF
SELECT
R1834
220
:CHIP
R1801
27k
:CHIP
R1802
56k
:CHIP
R1805
1M
:CHIP
X1802
6MHz
R1833
100
:CHIP
C1802
0.1
16V
B:CHIP
R1803
27k
:CHIP
Q1804
2SA1162
SW
D1808
RD5.6SB-T1
PROTECT
VCC
IC1804
S-80840ANUP
RESET
OUT
VCC
VSS
+5V
D1801
RD5.6SB
5V REG
C1801
47
16V
:AL-CP
R1818
56k
:CHIP
R1838
56k
:CHIP
R1840
56k
:CHIP
R1837
56k
:CHIP
R1839
56k
:CHIP
R1804
33k
:CHIP
CN1801
13P
BUS
INPUT B MOUS
D1802
RB501V
SELECT SW
+5V/DTR
JL1801 #
RB1801
100
R1841
10k
:CHIP
IC1801
ST72633
RCV4
MOUSE DRV
C1803
0.1
16V
B:CHIP
C1809
#
B:CHIP
R1831
1.5k
:CHIP
XA
JL1802 #
D1803
RD5.6SB-T1
PROTECT
XB
JL1803 #
D1804
RD5.6SB-T1
PROTECT
YA
JL1804 #
D1805
RD5.6SB-T1
PROTECT
YB
JL1805 #
D1806
RD5.6SB-T1
PROTECT
L/PS
JL1806 #
D1807
RD5.6SB-T1
PROTECT
R1808
100 :CHIP
R
JL1807 #
D1811
RD5.6SB-T1
PROTECT
R1809
100 :CHIP
98/AT/TXD
JL1808 #
JL1809
#
+5V
D1812
1SS355
SELECT SW
D1809
1SS355
SELECT SW
R1810
1k :CHIP
D1817
RD5.6SB-T1
PROTECT
D1816
RD9.1SB2-T1
PROTECT
D1815
1SS355
SELECT SW
D1818
RB501V
SELECT SW
R1811
2.7k :CHIP
RTS
JL1810 #
D1819
RD5.6SB-T1
PROTECT
R1813
47 :CHIP
CLK
JL1811 #
R1814
47 :CHIP
DAT/RI
JL1812 #
D1820
RD5.6SB-T1
PROTECT
R1815
5.6k :CHIP
RXD
JL1813 #
R1816
100
:CHIP
Q1802
2SA1162
BUFF
R1817
27k
:CHIP
R1819
27k
:CHIP
D1821
RD5.6SB-T1
PROTECT
D1822
RD5.6SB-T1
PROTECT
VDD
X2
X1
VSS
PC2
PC1
PC0
RESET
N C
PB7
PB6
VPP
PB5
PB4
PB3
PB2
PB1
VDDA
USBVCC
USB-
USB+
VSSA
PA0
PA1
N C
N C
N C
PA2
PA3
PA4
PA5
PA6
PA7
PB0
R1806
10k
:CHIP
R1807
10k
:CHIP
C1804
100p
CH:CHIP
R1843
10k
:CHIP
C1805
100p
CH:CHIP
R1812
4.7k
:CHIP
R1842
56k
:CHIP
Q1801
DTC144EKA
INV
R1820
27k
:CHIP
C1807
100p
CH:CHIP
R1821
10k
:CHIP
C1806
100p
CH:CHIP
A
(P1)
QC (2/2)
(INPUT B MOUS TERMINAL,
MOUSE DRV.)
B-SS1696<08 >-QC -P2

MAX202 (IC1901)


C1+ 1
V+ 2
C1- 3
C2+ 4
C2- 5
V- 6
T2OUT 7
R2IN 8
16 Vcc
15 GND
14 T1OUT
13 R1IN
12 R1OUT
11 T1IN
10 T2IN
9 R2OUT
VOLTAGE DOUBLER
VOLTAGE INVERTER

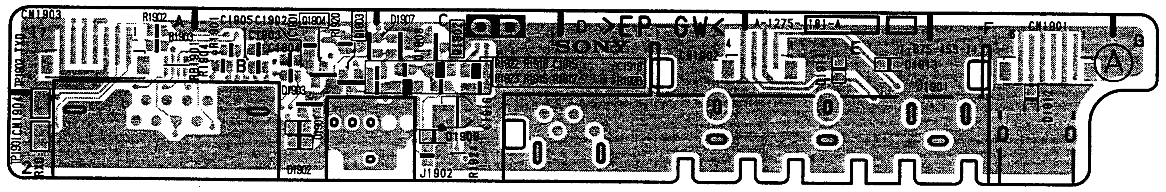
PC74HC123D (IC1902)


A 1
B 2
RD 3
Q 4
Q 5
C 6
R 7
GND 8
16 VDD
15 R
14 C
13 Q
12 Q
11 RD
10 B
9 A
D
Q
RD


SONY
QD
IC1901
IC1902
CN1904
D1901
L1901
C1919

QD – B SIDE –

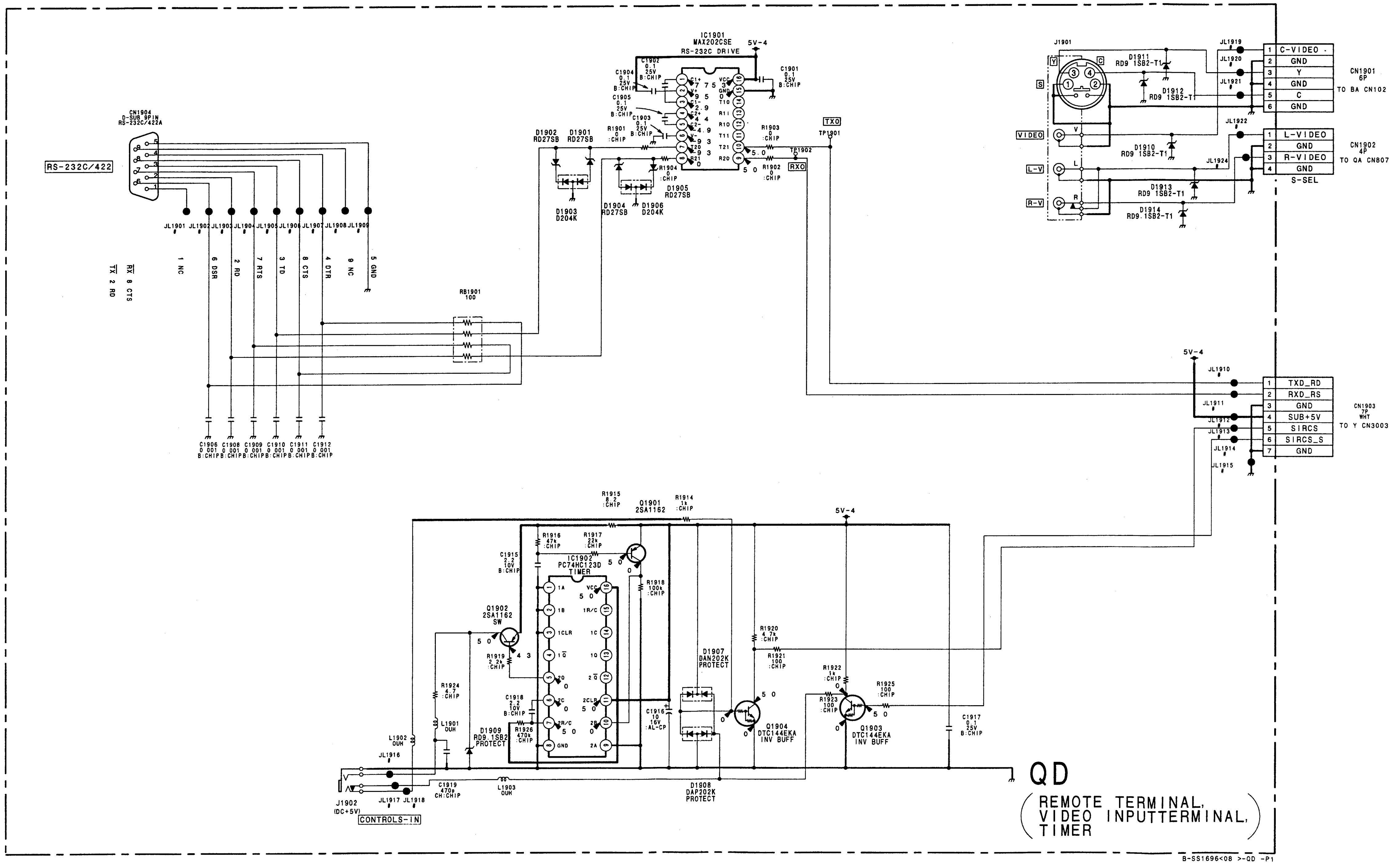
SUFFIX ; -11


CN1903
CN1901
SONY
QD
J1902
A

QD – A SIDE –

SUFFIX ; -11

- Refer to page 9-14 for Printed Wiring Board
- Refer to page 9-14 for IC Block Diagrams


RS-232C/422
CN1904
D-SUB 9PIN
RS-232C/422A
JL1901 JL1902 JL1903 JL1904 JL1905 JL1906 JL1907 JL1908 JL1909
1 NC
6 DSR
2 RD
7 RTS
3 TD
8 CTS
4 DTR
9 NC
5 GND
RX 8 CTS
TX 2 RD
RB1901
100
C1906 C1908 C1909 C1910 C1911 C1912
0.001 0.001 0.001 0.001 0.001 0.001
B:CHIP B:CHIP B:CHIP B:CHIP B:CHIP B:CHIP
IC1901
MAX202CSE
RS-232C DRIVE
5V-4
C1901 0.1 25V B:CHIP
C1902 0.1 25V B:CHIP
C1903 0.1 25V B:CHIP
C1904 0.1 25V B:CHIP
C1905 0.1 25V B:CHIP
C1+ V+ C1- C2+ C2- V- T20 R21
VCC GND T10 R11 R10 T11 T21 R20
R1901 0 :CHIP
R1902 0 :CHIP
R1903 0 :CHIP
R1904 0 :CHIP
D1901 RD27SB
D1902 RD27SB
D1903 D204K
D1904 RD27SB
D1905 RD27SB
D1906 D204K
TXO
TP1901
TP1902
RXO
J1901
Y C S
VIDEO
L-V
R-V
V L R
D1910 RD9 1SB2-T1
D1911 RD9 1SB2-T1
D1912 RD9 1SB2-T1
D1913 RD9 1SB2-T1
D1914 RD9.1SB2-T1
JL1919 JL1920 JL1921 JL1922 JL1924
CN1901 6P TO BA CN102
1 C-VIDEO
2 GND
3 Y
4 GND
5 C
6 GND
CN1902 4P TO QA CN807
1 L-VIDEO
2 GND
3 R-VIDEO
4 GND
S-SEL
5V-4
JL1910 JL1911 JL1912 JL1913 JL1914 JL1915
CN1903 7P WHT TO Y CN3003
1 TXD_RD
2 RXD_RS
3 GND
4 SUB+5V
5 SIRCS
6 SIRCS_S
7 GND
R1915 8.2 :CHIP
Q1901 2SA1162
R1914 1k :CHIP
R1916 47k :CHIP
R1917 22k :CHIP
C1915 2.2 10V B:CHIP
IC1902
PC74HC123D
TIMER
1A 1B 1CLR 1Q̄ 2Q 2C 2R/C GND
VCC 1R/C 1C 1Q 2Q̄ 2CLR 2B 2A
R1918 100k :CHIP
Q1902 2SA1162 SW
R1919 2.2k :CHIP
R1924 4.7 :CHIP
L1901 OUH
L1902 OUH
L1903 OUH
C1918 2.2 10V B:CHIP
D1909 RD9.1SB2 PROTECT
R1926 470k :CHIP
C1916 10 16V :AL-CP
D1907 DAN202K PROTECT
D1908 DAP202K PROTECT
R1920 4.7k :CHIP
R1921 100 :CHIP
R1922 1k :CHIP
R1923 100 :CHIP
R1925 100 :CHIP
Q1904 DTC144EKA INV BUFF
Q1903 DTC144EKA INV BUFF
C1917 0.1 25V B:CHIP
C1919 470p CH:CHIP
JL1916 JL1917 JL1918
J1902 (DC+5V)
CONTROLS-IN
5V-4
QD
(REMOTE TERMINAL,
VIDEO INPUTTERMINAL,
TIMER)
B-SS1696<08 >-QD -P1

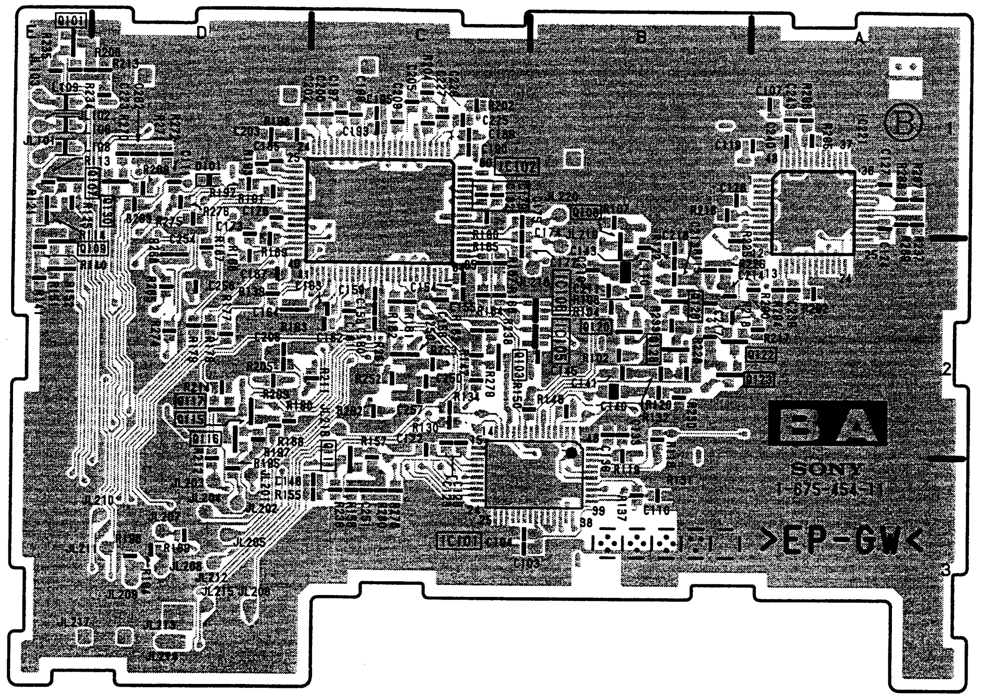
BA BA

BA

1-675-454-11

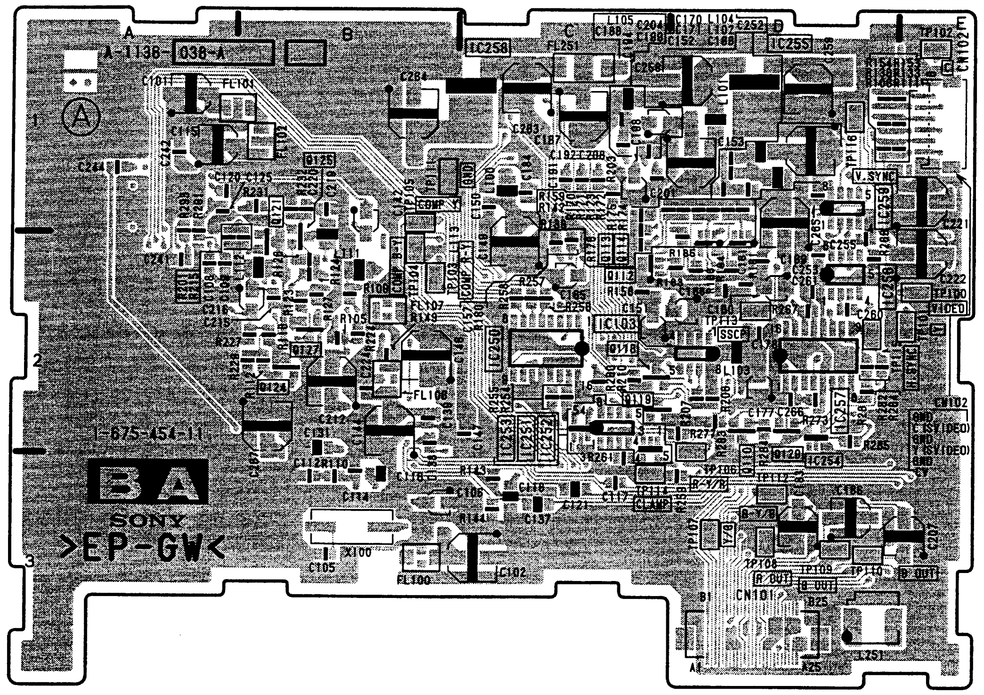
IC101	* C-3
IC102	* C-1
IC103	C-2
IC105	* B-2
IC106	* B-2
IC250	C-2
IC251	C-2
IC252	C-2
IC253	C-2
IC254	D-3
IC255	D-1
IC256	D-2
IC257	D-2
IC258	C-1
IC259	D-1
Q101	* E-1
Q103	* C-2
Q107	* D-1
Q108	* B-1
Q109	* E-2
Q110	D-3
Q111	* C-3
Q112	C-2
Q113	C-2
Q114	C-2
Q115	* D-2
Q116	* D-2
Q117	* D-2
Q118	C-2
Q119	C-2
Q120	* B-2
Q121	B-1
Q122	* A-2
Q123	* A-2
Q124	B-2
Q125	B-1
Q126	* B-2
Q127	B-2
Q128	* B-2
Q129	D-3
Q130	* D-1
R201	A-2
R215	A-2
TP100	E-2
TP101	E-2
TP102	E-1
TP103	B-2
TP104	B-2
TP106	D-3
TP107	D-3
TP108	D-3
TP109	D-3
TP110	D-3
TP112	D-3
TP113	D-2
TP114	C-3
TP115	E-2

*:B Side mount


E
D
C
B
A
1
2
3
Ⓑ
BA
SONY
1-675-454-11
>EP-GW<

BA - B SIDE -

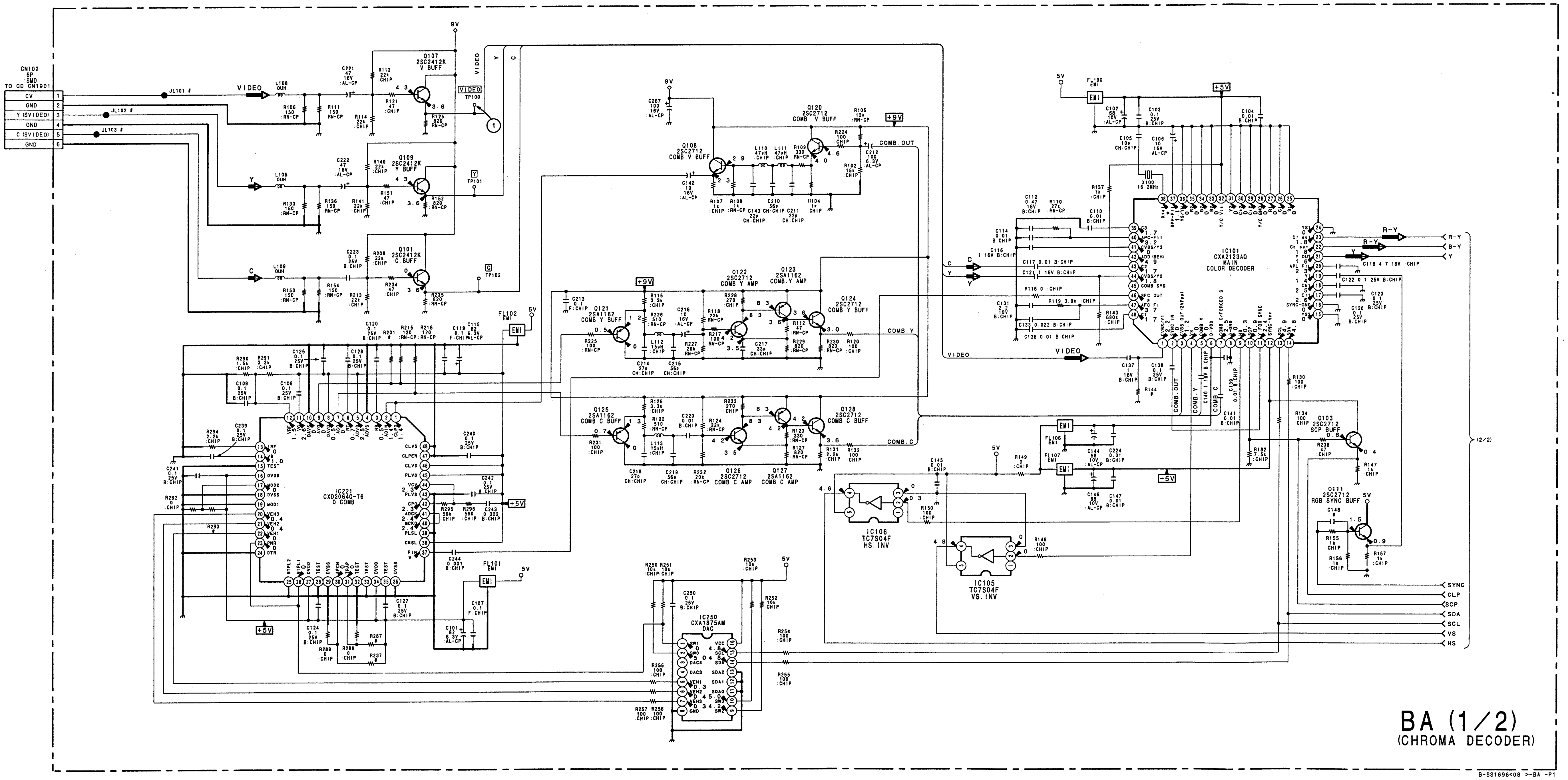
SUFFIX ; -11


A
B
C
D
E
1
2
3
Ⓐ
A-1136-038-A
1-675-454-11
BA
SONY
>EP-GW<

BA- A SIDE -

SUFFIX ; -11

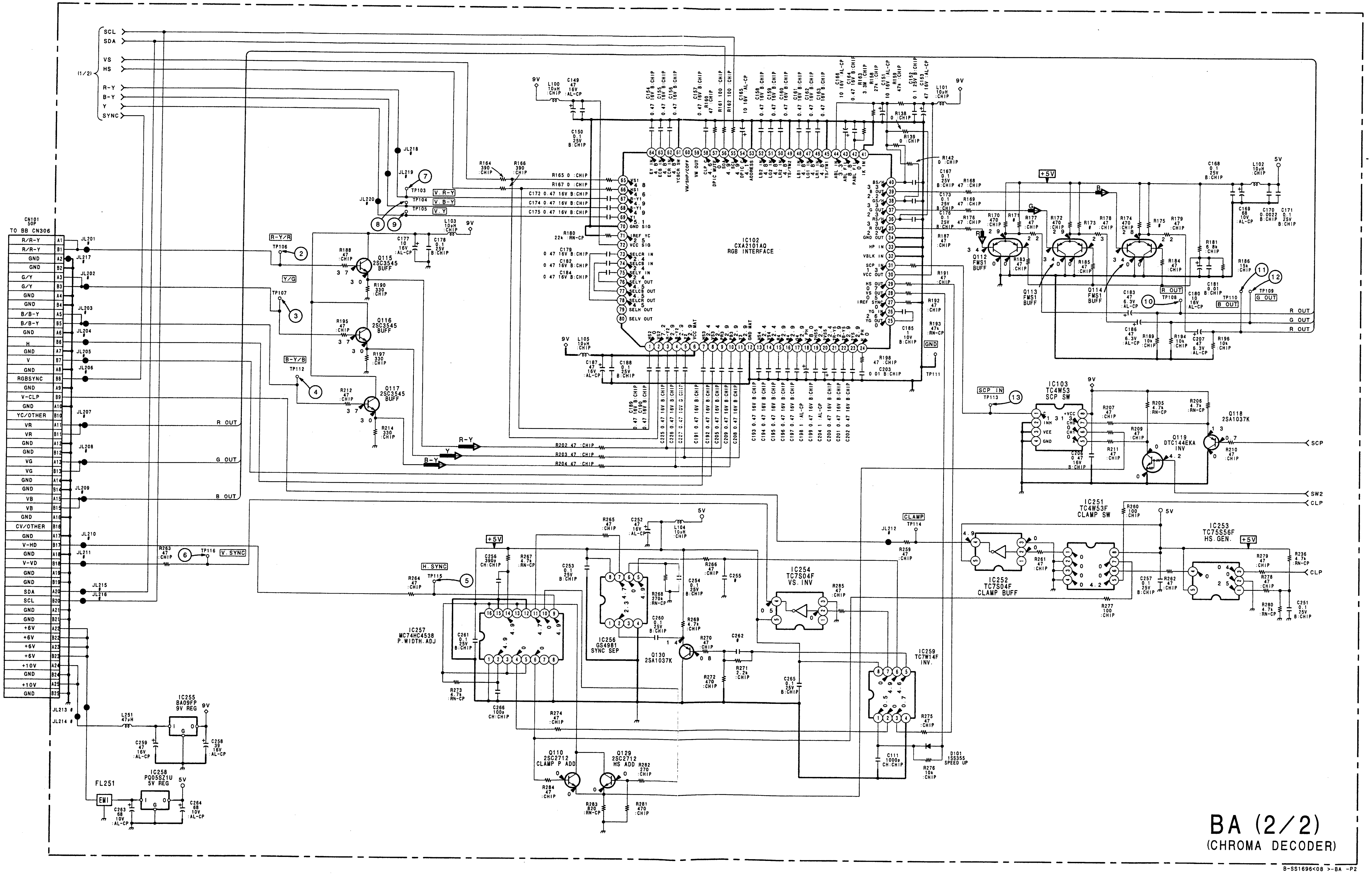
- Refer to page 9-16 for Printed Wiring Board
- Refer to page 9-19 for Waveforms
- Refer to page 9-19 for IC Block Diagrams


BA (1/2)
(CHROMA DECODER)
CN102 6P SMD TO QD CN1901
CV
GND
Y (S VIDEO)
GND
C (S VIDEO)
GND
VIDEO
Y
C
Q107 2SC2412K V BUFF
Q109 2SC2412K Y BUFF
Q101 2SC2412K C BUFF
TP100
TP101
TP102
Q108 2SC2712 COMB V BUFF
Q120 2SC2712 COMB V BUFF
COMB OUT
Q121 2SA1162 COMB Y BUFF
Q122 2SC2712 COMB Y AMP
Q123 2SA1162 COMB Y AMP
Q124 2SC2712 COMB Y BUFF
COMB Y
Q125 2SA1162 COMB C BUFF
Q126 2SC2712 COMB C AMP
Q127 2SA1162 COMB C AMP
Q128 2SC2712 COMB C BUFF
COMB C
IC221 CXD2064Q-T6 D COMB
IC101 CXA2123AQ MAIN COLOR DECODER
X100 16.2MHz
IC106 TC7S04F HS. INV
IC105 TC7S04F VS. INV
IC250 CXA1875AM DAC
Q103 2SC2712 SCP BUFF
Q111 2SC2712 RGB SYNC BUFF
FL100 EMI
FL101 EMI
FL102 EMI
FL106 EMI
FL107 EMI
9V
5V
+5V
+9V
R-Y
B-Y
Y
SYNC
CLP
SCP
SDA
SCL
VS
HS
(2/2)
B-SS1696<08>-BA-P1
1
2
3
4
5
A
B
C
D
E
F
G
H

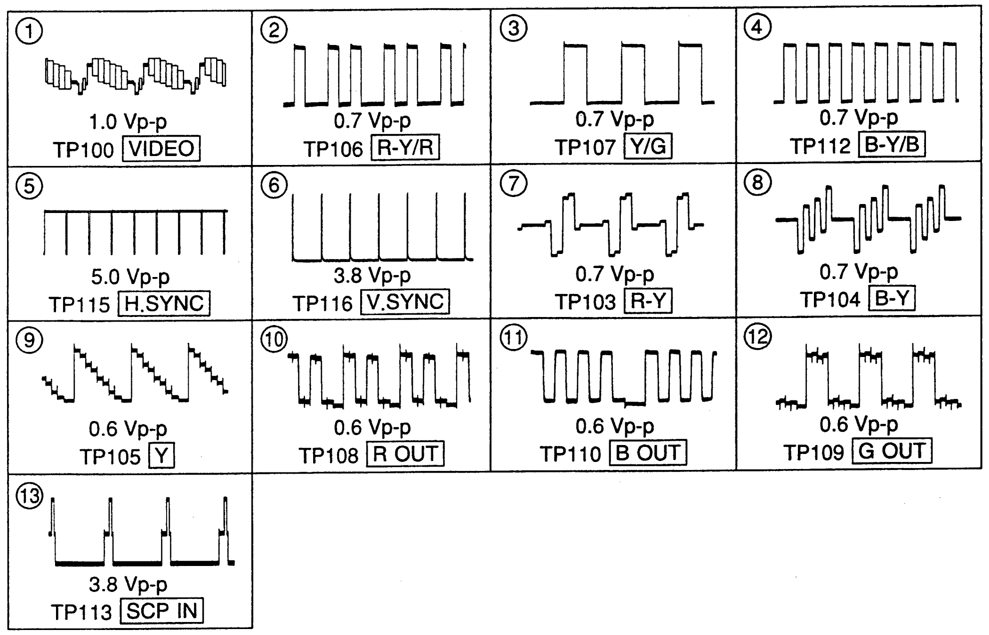
BA (2/2)

BA (2/2)

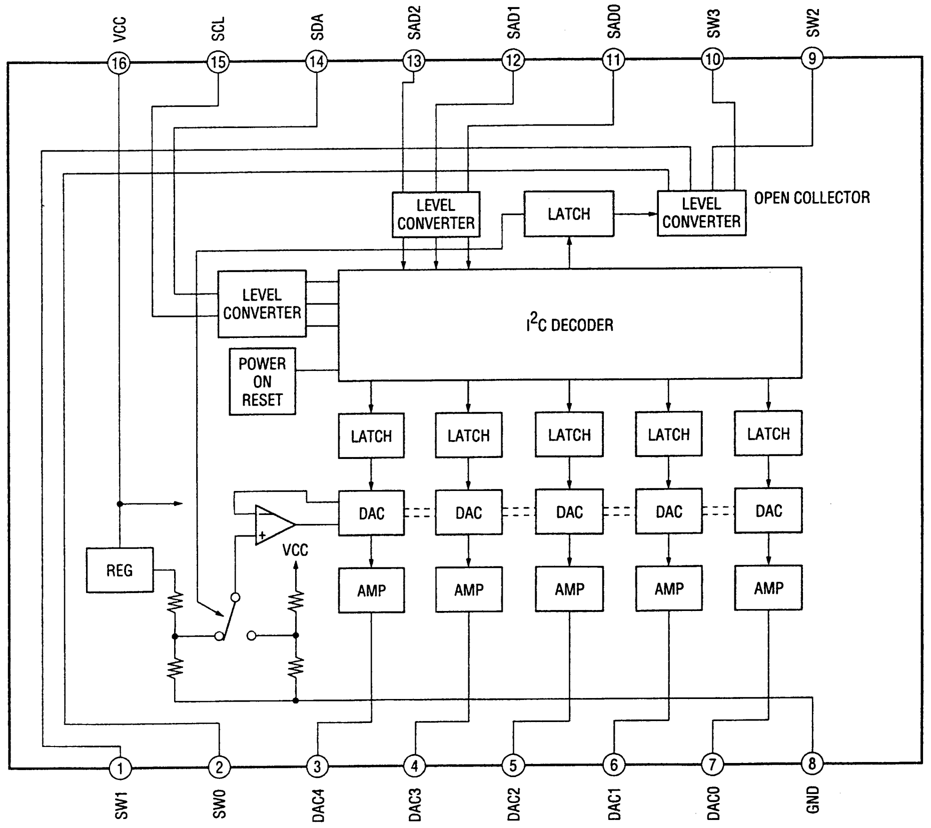
- Refer to page 9-16 for Printed Wiring Board
- Refer to page 9-19 for Waveforms
- Refer to page 9-19 for IC Block Diagrams


1
2
3
4
5
A
B
C
D
E
F
G
H
(1/2)
SCL
SDA
VS
HS
R-Y
B-Y
Y
SYNC
CN101 50P TO BB CN306
A1 R/R-Y
B1 R/R-Y
A2 GND
B2 GND
A3 G/Y
B3 G/Y
A4 GND
B4 GND
A5 B/B-Y
B5 B/B-Y
A6 GND
B6 H
A7 GND
B7 V
A8 GND
B8 RGBSYNC
A9 GND
B9 V-CLP
A10 GND
B10 YC/OTHER
A11 VR
B11 VR
A12 GND
B12 GND
A13 VG
B13 VG
A14 GND
B14 GND
A15 VB
B15 VB
A16 GND
B16 CV/OTHER
A17 GND
B17 V-HD
A18 GND
B18 V-VD
A19 GND
B19 GND
A20 SDA
B20 SCL
A21 GND
B21 GND
A22 +6V
B22 +6V
A23 +6V
B23 +6V
A24 +10V
B24 GND
A25 +10V
B25 GND
R-Y/R
Y/G
B-Y/B
V.R-Y
V.B-Y
V.Y
TP103
TP104
TP105
TP106
TP107
TP112
Q115 2SC3545 BUFF
Q116 2SC3545 BUFF
Q117 2SC3545 BUFF
R OUT
G OUT
B OUT
IC102 CXA2101AQ RGB INTERFACE
9V
5V
+5V
Q112 FMS1 BUFF
Q113 FMS1 BUFF
Q114 FMS1 BUFF
TP108
TP109
TP110
TP111
GND
SCP IN
TP113
IC103 TC4W53 SCP SW
Q118 2SA1037K
Q119 DTC144EKA INV
SCP
SW2
CLP
IC251 TC4W53F CLAMP SW
IC252 TC7S04F CLAMP BUFF
IC253 TC7S56F HS.GEN.
CLAMP
TP114
V.SYNC
TP116
H.SYNC
TP115
IC254 TC7S04F VS.INV
IC256 GS4981 SYNC SEP
IC257 MC74HC4538 P.WIDTH.ADJ
Q130 2SA1037K
IC259 TC7W14F INV.
D101 1SS355 SPEED UP
Q110 2SC2712 CLAMP P ADD
Q129 2SC2712 HS ADD
IC255 BA09FP 9V REG
IC258 PQ05SZ1U 5V REG
FL251
EMI
BA (2/2)
(CHROMA DECODER)
B-SS1696<08>-BA -P2

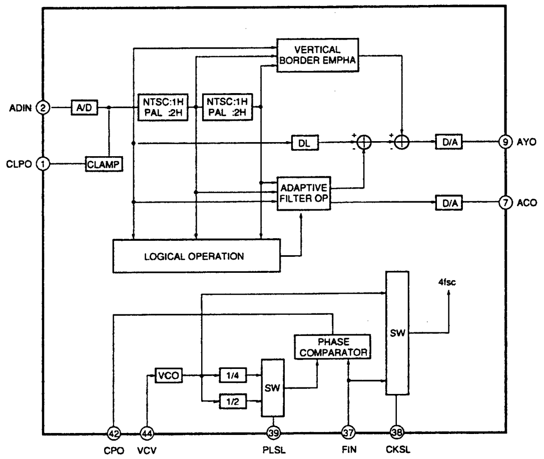
BA Board Waveforms



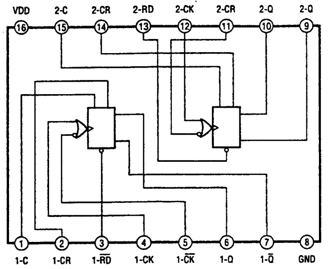
CXA1875AM-T4 (IC250)


VCC
SCL
SDA
SAD2
SAD1
SAD0
SW3
SW2
⑯
⑮
⑭
⑬
⑫
⑪
⑩
⑨
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
OPEN COLLECTOR
LEVEL CONVERTER
I²C DECODER
POWER ON RESET
LATCH
LATCH
LATCH
LATCH
LATCH
DAC
DAC
DAC
DAC
DAC
VCC
REG
AMP
AMP
AMP
AMP
AMP
①
②
③
④
⑤
⑥
⑦
⑧
SW1
SW0
DAC4
DAC3
DAC2
DAC1
DAC0
GND

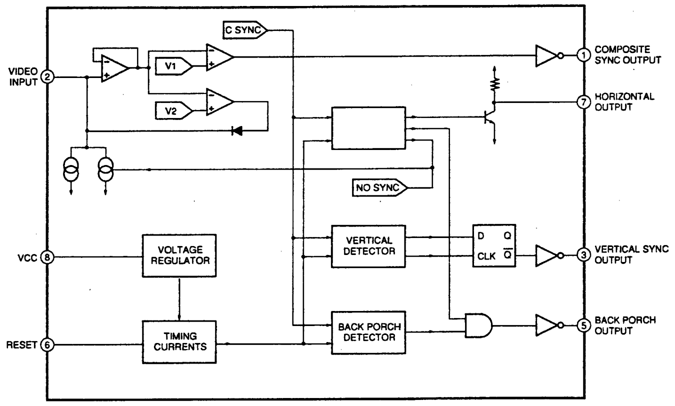
CXD2064Q-T6 (IC221)


VERTICAL BORDER EMPHA
ADIN ②
A/D
NTSC:1H PAL :2H
NTSC:1H PAL :2H
DL
D/A
⑨ AYO
CLPO ①
CLAMP
ADAPTIVE FILTER OP
D/A
⑦ ACO
LOGICAL OPERATION
4fsc
SW
PHASE COMPARATOR
VCO
1/4
1/2
SW
㊷ CPO
㊹ VCV
㊴ PLSL
㊲ FIN
㊳ CKSL

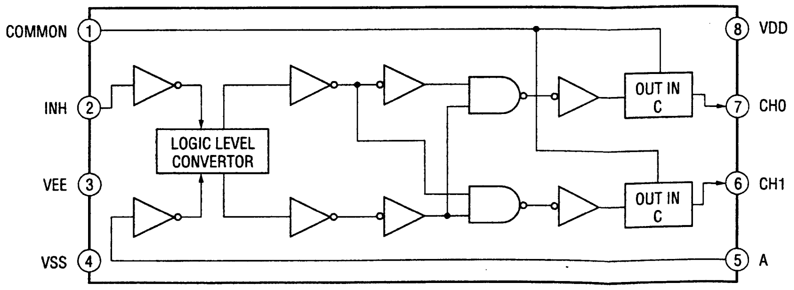
MC74HC4538AFEL (IC257)


VDD
2-C
2-CR
2-RD
2-CK
2-CR
2-Q
2-Q
⑯
⑮
⑭
⑬
⑫
⑪
⑩
⑨
①
②
③
④
⑤
⑥
⑦
⑧
1-C
1-CR
1-RD
1-CK
1-CK
1-Q
1-Q
GND

GS4981 (IC256)


C SYNC
VIDEO INPUT ②
V1
V2
① COMPOSITE SYNC OUTPUT
⑦ HORIZONTAL OUTPUT
NO SYNC
VCC ⑧
VOLTAGE REGULATOR
VERTICAL DETECTOR
D Q
CLK Q
③ VERTICAL SYNC OUTPUT
RESET ⑥
TIMING CURRENTS
BACK PORCH DETECTOR
⑤ BACK PORCH OUTPUT

TC4W53F (TE12R) (IC251, 103)

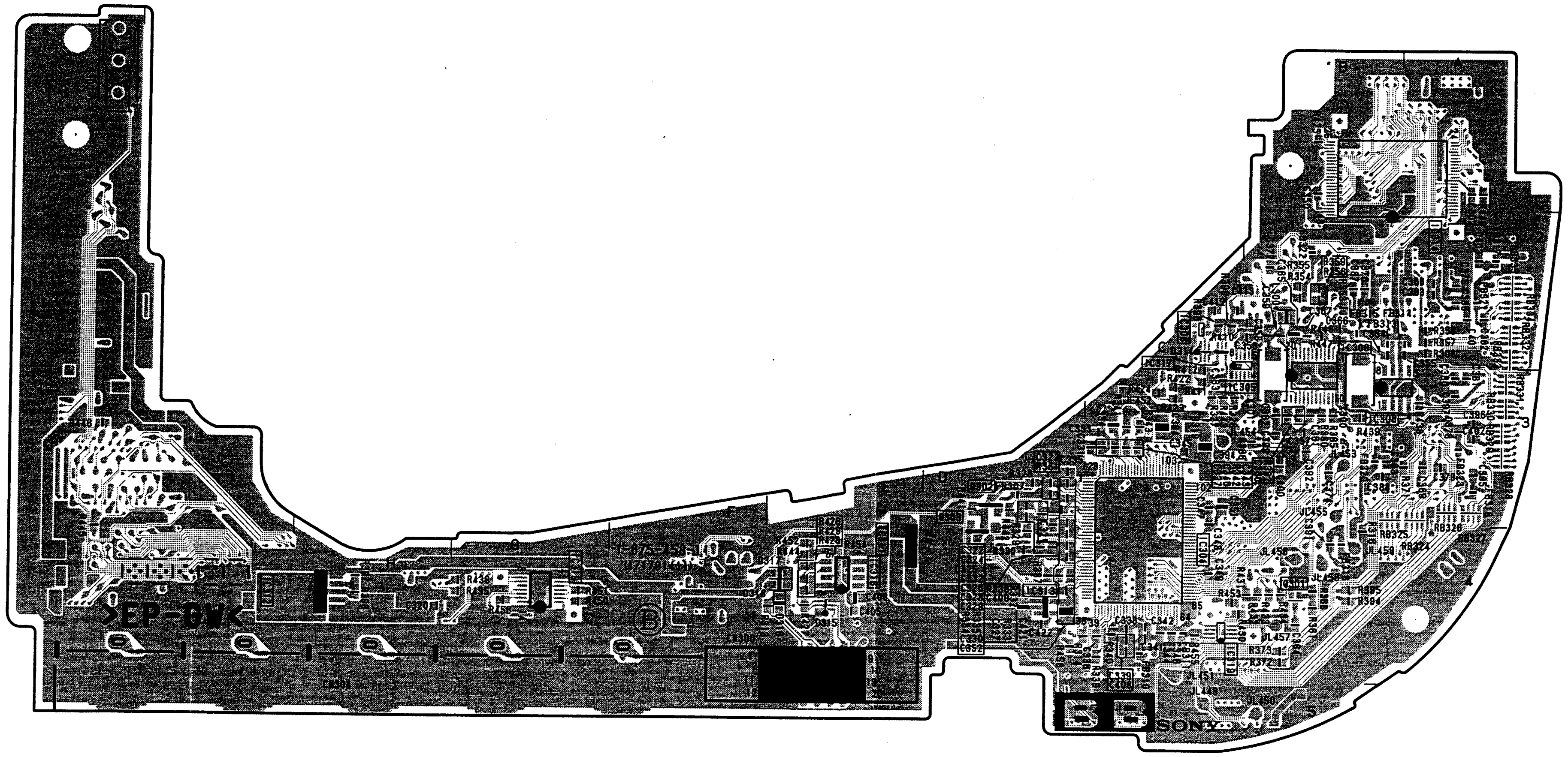

COMMON ①
INH ②
VEE ③
VSS ④
LOGIC LEVEL CONVERTOR
OUT IN C
OUT IN C
⑧ VDD
⑦ CH0
⑥ CH1
⑤ A

BB

1-675-458-11

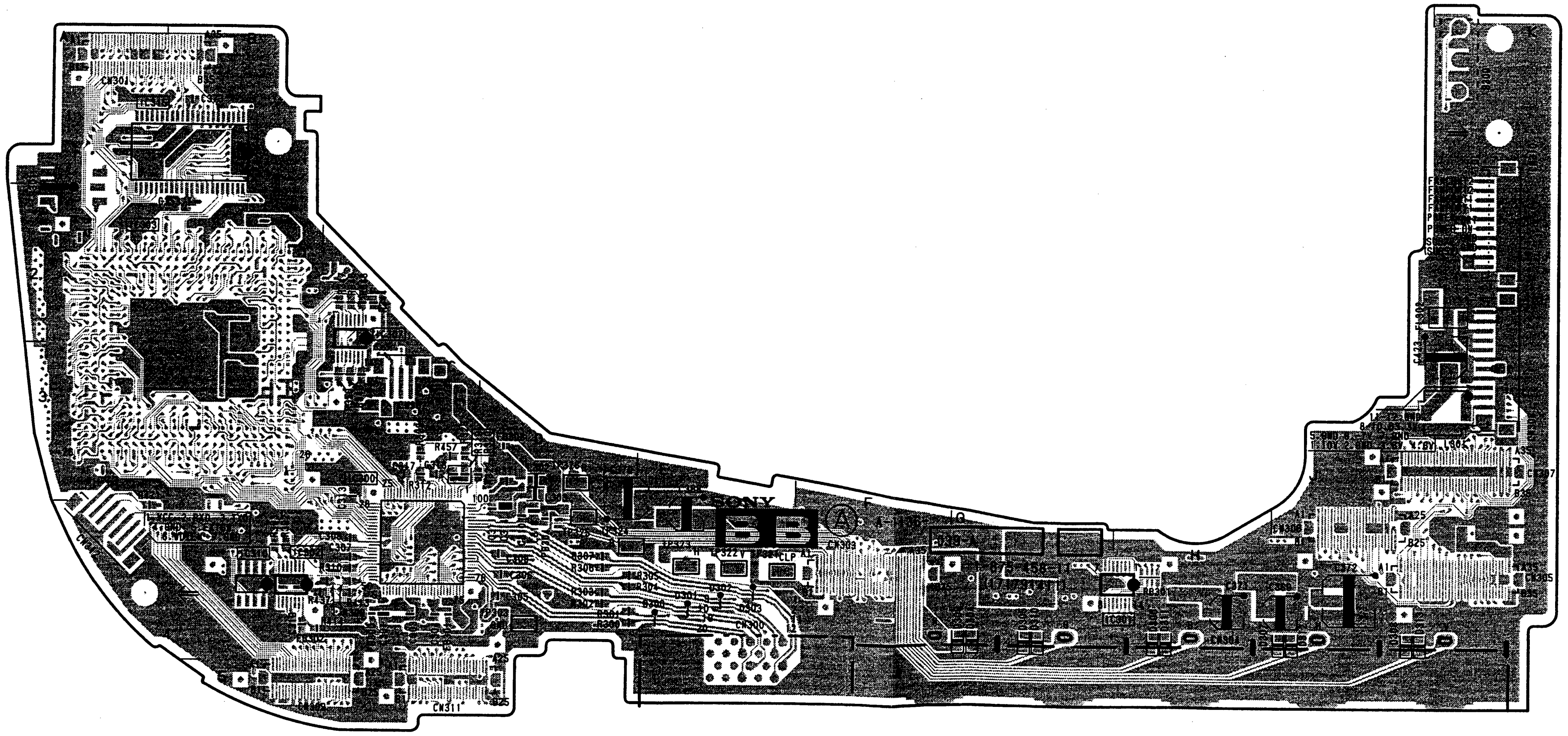
C322	*D-4
C323	*D-3
C324	*D-4
C325	*D-4
C326	*D-4
C327	*D-4
C328	*D-4
C329	*D-4
C330	*D-4
C332	*D-4
C337	*C-3
C339	*C-4
C340	*C-3
C343	*B-3
C352	*D-4
C408	*C-5
C409	*D-4
IC300	C-3
IC301	H-4
IC302	B-4
IC303	A-2
IC304	*C-4
IC305	*B-3
IC306	*C-2
IC307	C-2
IC308	*B-3
IC309	*B-2
IC310	B-4
IC311	*E-4
IC312	*J-4
IC313	*D-4
IC314	*A-2
IC315	A-1
IC316	*E-4
IC317	*C-2
IC318	*G-4
IC319	*C-4
Q301	*B-4
Q302	*D-3
Q303	*D-3
TP328	D-3
TP324	D-4
TP325	D-4
TP303	D-4
TP323	E-4
TP322	E-4
TP321	E-4

*:B Side mount



BB – B SIDE –

SUFFIX ; -11

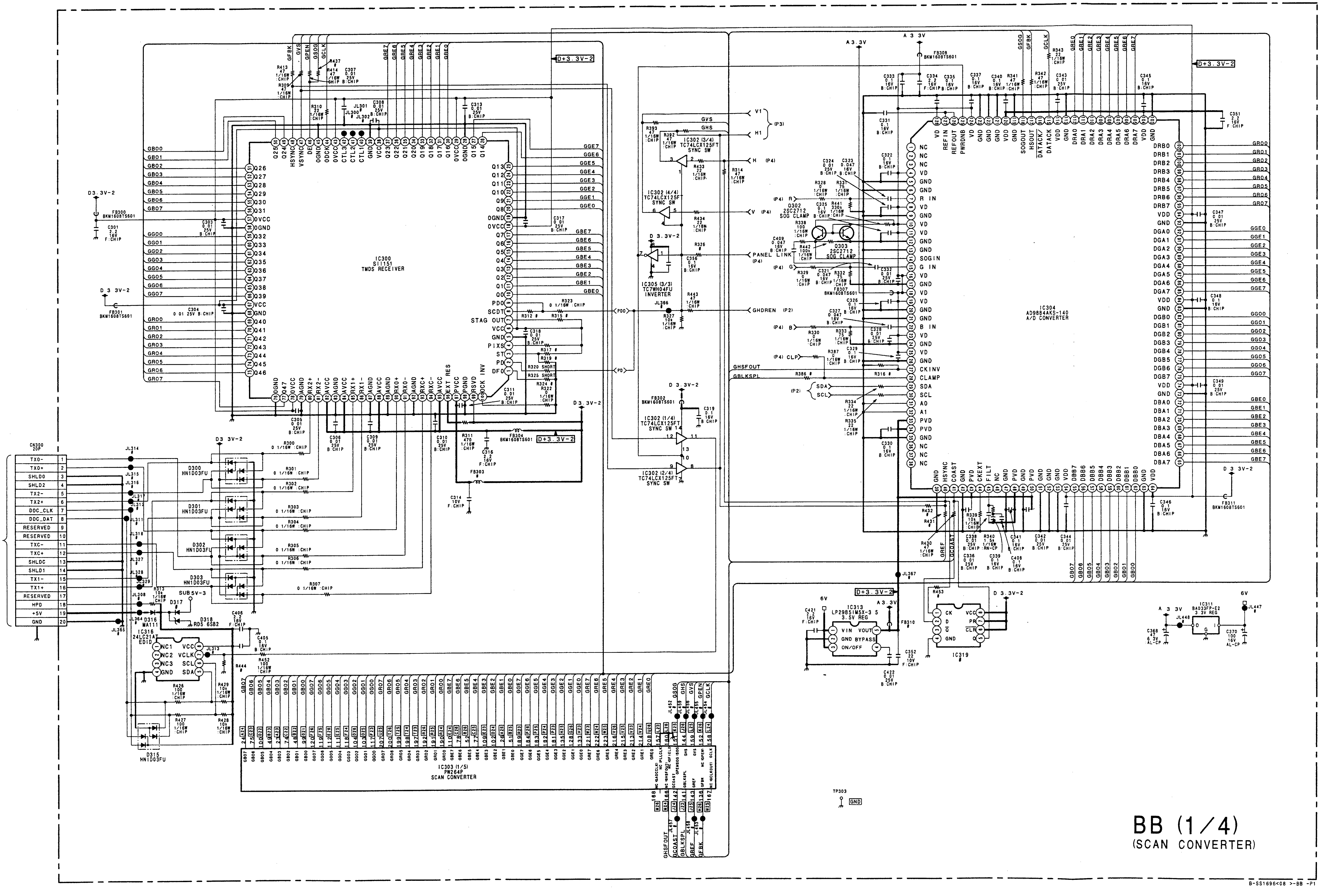


BB– A SIDE –

SUFFIX ; -11

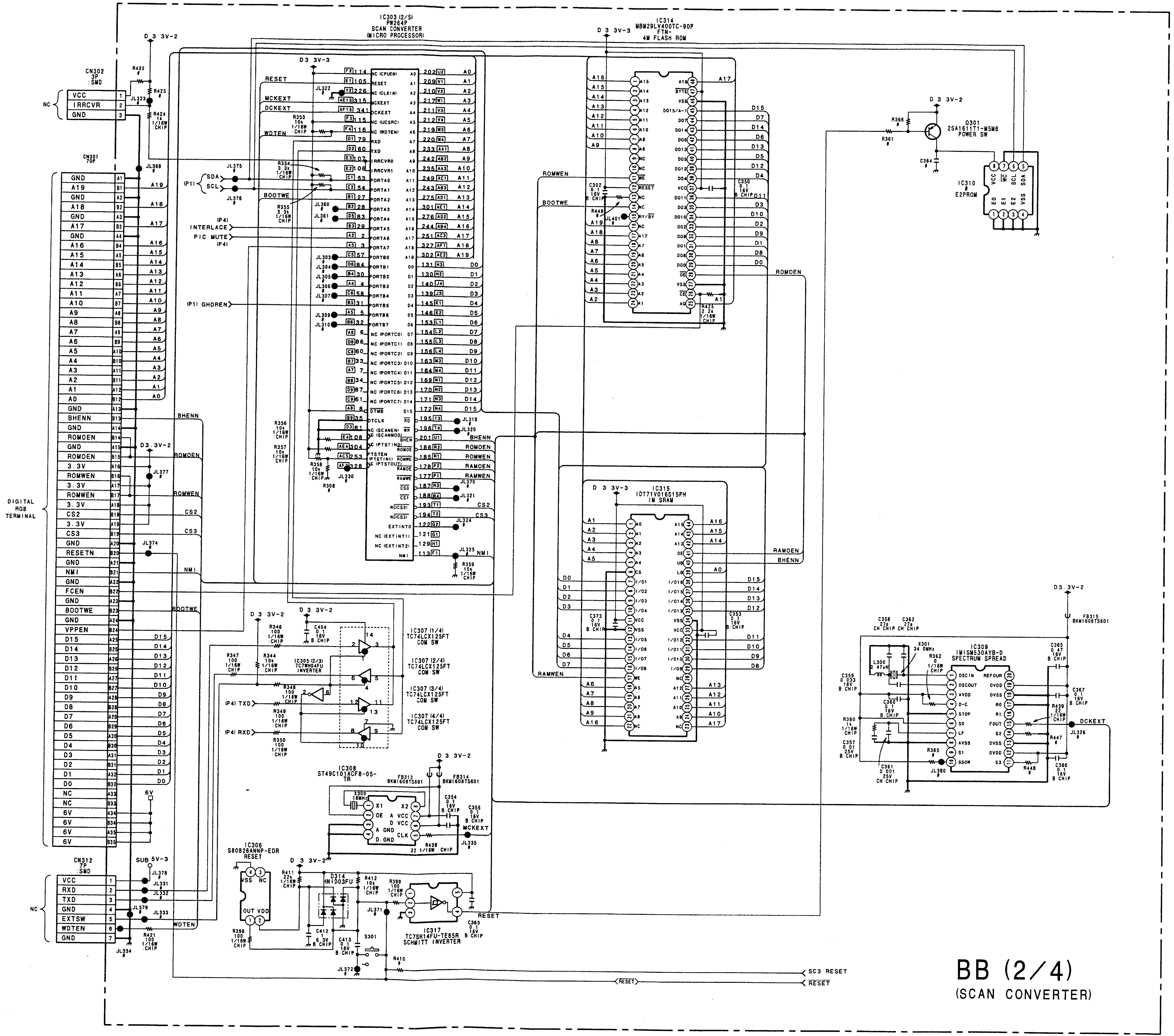
• Refer to page 9-20 for Printed Wiring Board

1
2
3
4
5

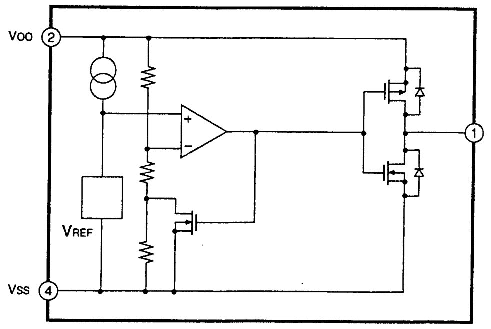

IC300
SII151
TMDS RECEIVER
IC304
AD9884AKS-140
A/D CONVERTER
IC303 (1/5)
PW264P
SCAN CONVERTER
IC302 (3/4) TC74LCX125FT SYNC SW
IC302 (4/4) TC74LCX125FT SYNC SW
IC302 (1/4) TC74LCX125FT SYNC SW
IC302 (2/4) TC74LCX125FT SYNC SW
IC305 (3/3) TC7WH04FU INVERTER
IC313 LP2985IM5X-3.5 3.5V REG
IC311 BA033FP-E2 3.3V REG
IC316 24LC21AT EDID
IC319
Q302 2SC2712 SOG CLAMP
Q303 2SC2712 SOG CLAMP
D300 HN1D03FU
D301 HN1D03FU
D302 HN1D03FU
D303 HN1D03FU
D315 HN1D03FU
D316 MA111
D317
D318 RD5.6SB2
CN300 20P
TX0-
TX0+
SHLD0
SHLD2
TX2-
TX2+
DDC_CLK
DDC_DAT
RESERVED
RESERVED
TXC-
TXC+
SHLDC
SHLD1
TX1-
TX1+
RESERVED
HPD
+5V
GND
NC
D+3.3V-2
D3.3V-2
A3.3V
SUB5V-3
6V
V1
H1
(P3)
H (P4)
V (P4)
PANEL LINK (P4)
GHDREN (P2)
SDA
SCL
(P2)
(P4) R
(P4) G
(P4) B
(P4) CLP
GHSFOUT
GBLKSPL
TP303
GND
BB (1/4)
(SCAN CONVERTER)
B-SS1696<08>-BB-P1

A | B | C | D | E | F | G | H

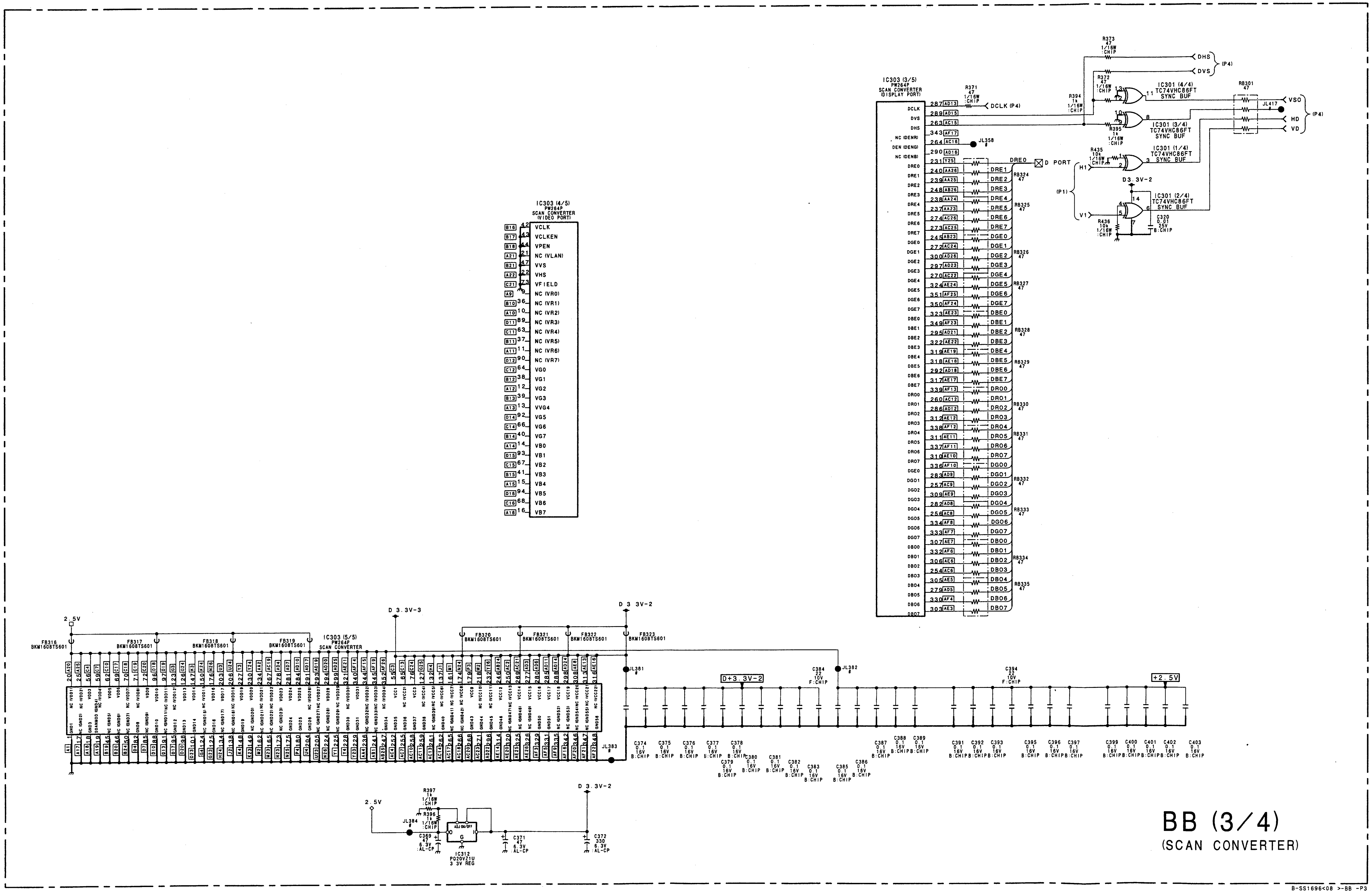
- Refer to page 9-20 for Printed Wiring Board


IC303 (2/5)
PW264P
SCAN CONVERTER
(MICRO PROCESSOR)
IC314
MBM29LV400TC-90P
-FTN-
4M FLASH ROM
IC315
IDT71V016S15PH
1M SRAM
IC310
E2PROM
Q301
2SA1611T1-M5M6
POWER SW
IC309
IMISM530AYB-D
SPECTRUM SPREAD
IC305 (2/3)
TC7WH04FU
INVERTER
IC307 (1/4)
TC74LCX125FT
COM SW
IC307 (2/4)
TC74LCX125FT
COM SW
IC307 (3/4)
TC74LCX125FT
COM SW
IC307 (4/4)
TC74LCX125FT
COM SW
IC308
ST49C101ACF8-05-TR
IC306
S80828ANNP-EDR
RESET
IC317
TC7SH14FU-TE85R
SCHMITT INVERTER
D314
1N1003FU
CN302
3P
SMD
CN301
70P
DIGITAL
RGB
TERMINAL
CN312
7P
SMD
NC
D 3 3V-2
D 3 3V-3
SUB 5V-3
6V
S301
SC3 RESET
RESET
DCKEXT
MCKEXT
BOOTWE
ROMWEN
ROMOEN
RAMOEN
RAMWEN
BHENN
NMI
WDTEN
(P1) SDA
(P1) SCL
(P4) INTERLACE
(P4) PIC MUTE
(P1) GHDREN
(P4) TXD
(P4) RXD
BB (2/4)
(SCAN CONVERTER)
B-SS1696<08 >-BB -P2

S-80828ANNP-ED4-T2 (IC306)

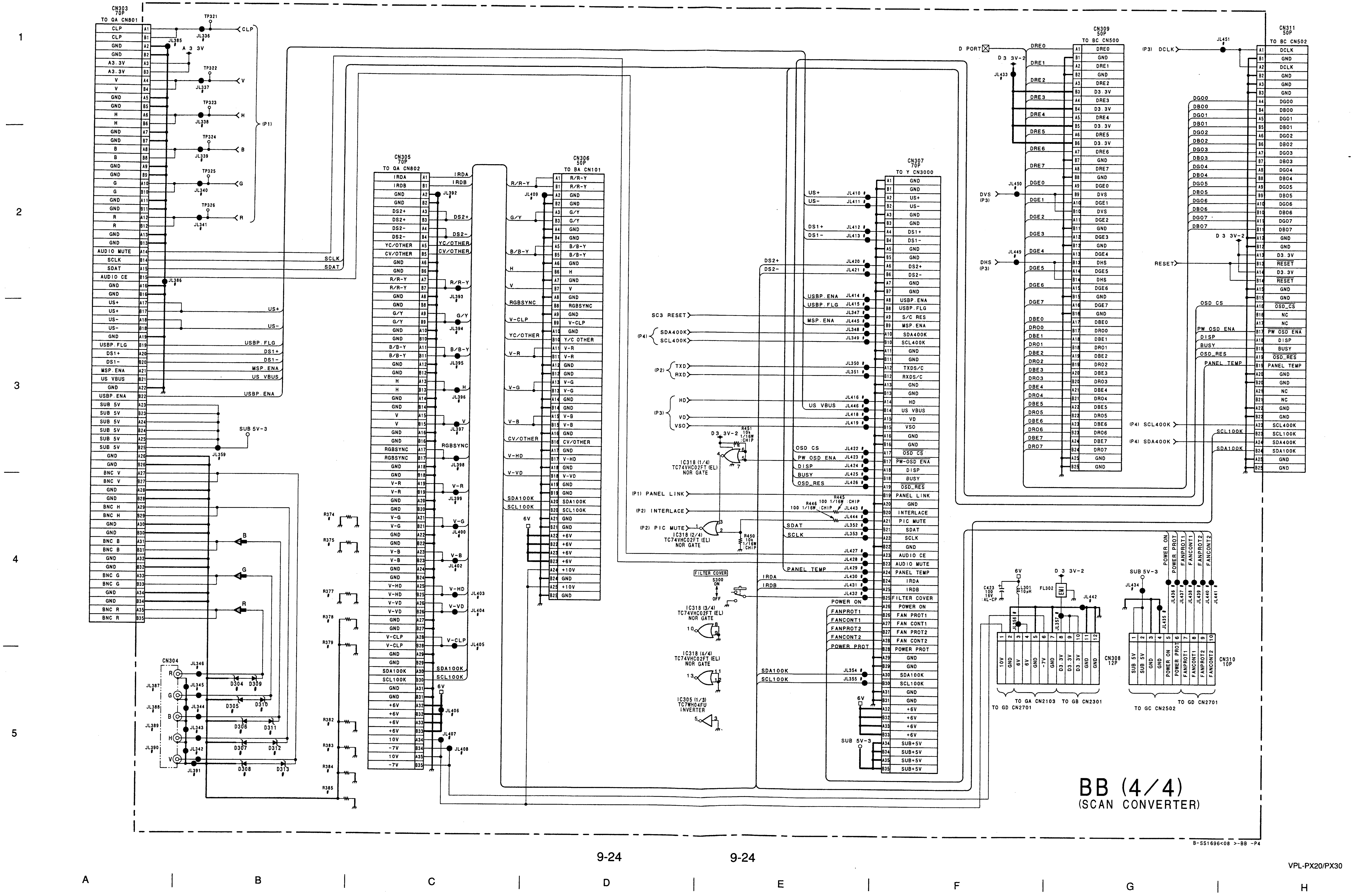

VDD ②
VSS ④
VREF
① OUT

• Refer to page 9-20 for Printed Wiring Board


IC303 (3/5)
PW264P
SCAN CONVERTER
(DISPLAY PORT)
IC303 (4/5)
PW264P
SCAN CONVERTER
(VIDEO PORT)
IC303 (5/5)
PW264P
SCAN CONVERTER
IC301 (4/4)
TC74VHC86FT
SYNC BUF
IC301 (3/4)
TC74VHC86FT
SYNC BUF
IC301 (1/4)
TC74VHC86FT
SYNC BUF
IC301 (2/4)
TC74VHC86FT
SYNC BUF
IC312
PQ20VZ1U
3.3V REG
DCLK (P4)
DHS
DVS
(P4)
VSO
HD
VD
D PORT
H1
V1
(P1)
D 3.3V-2
D 3.3V-3
2.5V
D+3.3V-2
+2.5V
FB316 BKM1608TS601
FB317 BKM1608TS601
FB318 BKM1608TS601
FB319 BKM1608TS601
FB320 BKM1608TS601
FB321 BKM1608TS601
FB322 BKM1608TS601
FB323 BKM1608TS601
JL381
JL382
JL383
JL384
JL358
JL417
RB301
R371
R372
R373
R394
R395
R435
R436
R396
R397
C320
C369
C371
C372
C384
C394
VCLK
VCLKEN
VPEN
VVS
VHS
VFIELD
DRE0
DCLK
DVS
DHS

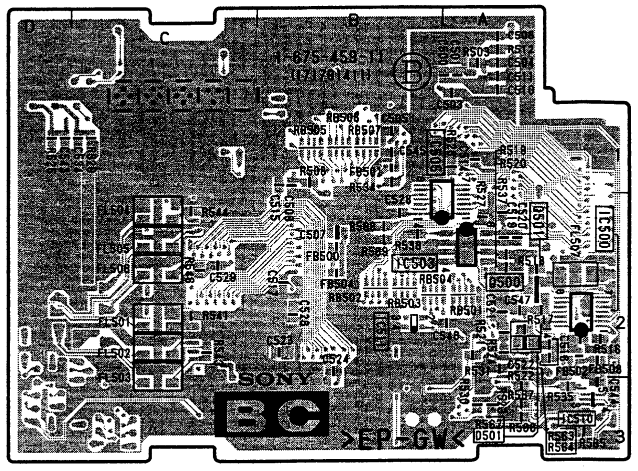
BB (3/4)
(SCAN CONVERTER)

• Refer to page 9-20 for Printed Wiring Board


1
2
3
4
5
CN303 70P TO QA CN801
CN304
CN305 70P TO QA CN802
CN306 50P TO BA CN101
CN307 70P TO Y CN3000
CN309 50P TO BC CN500
CN311 50P TO BC CN502
CN308 12P
TO GA CN2103 TO GB CN2301
TO GD CN2701
CN310 10P
TO GC CN2502
TO GD CN2701
(P1)
(P2)
(P3)
(P4)
SUB 5V-3
A 3 3V
D 3 3V-2
D PORT
IC318 (1/4) TC74VHC02FT (EL) NOR GATE
IC318 (2/4) TC74VHC02FT (EL) NOR GATE
IC318 (3/4) TC74VHC02FT (EL) NOR GATE
IC318 (4/4) TC74VHC02FT (EL) NOR GATE
IC305 (1/3) TC7WH04FU INVERTER
FILTER COVER S300 ON OFF
SC3 RESET
PANEL LINK
INTERLACE
PIC MUTE
DCLK
RESET
BB (4/4)
(SCAN CONVERTER)
B-SS1696<08 >-BB -P4

A | B | C | D | E | F | G | H

VPL-PX20/PX30

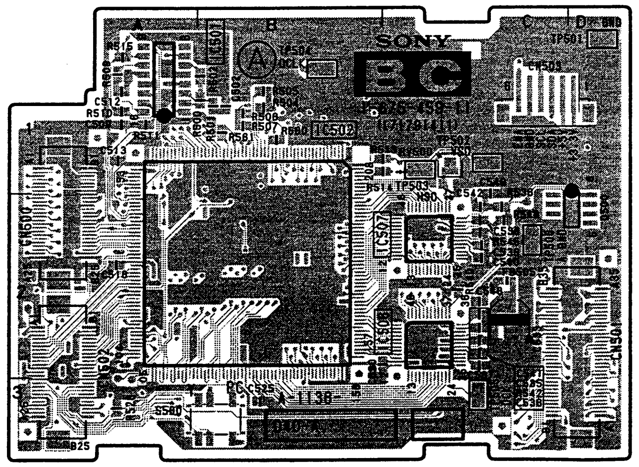

1-675-459-11
SONY
BC
>EP-GW<

BC – B SIDE –

SUFFIX ; -11

BC	
1-675-459-11	
IC500	* A-2
IC501	B-1
IC502	B-1
IC503	* B-2
IC505	* B-1
IC506	C-2
IC507	C-2
IC510	* A-3
IC511	* B-2
Q500	* A-2
Q501	* A-2
TP501	D-1
TP502	C-1
TP503	C-1
TP504	C-1
TP506	C-2
TP505	C-3

*:B Side mount



BC – A SIDE –

SUFFIX ; -11

- Refer to page 9-25 for Printed Wiring Board
- Refer to page 9-27 for Waveforms

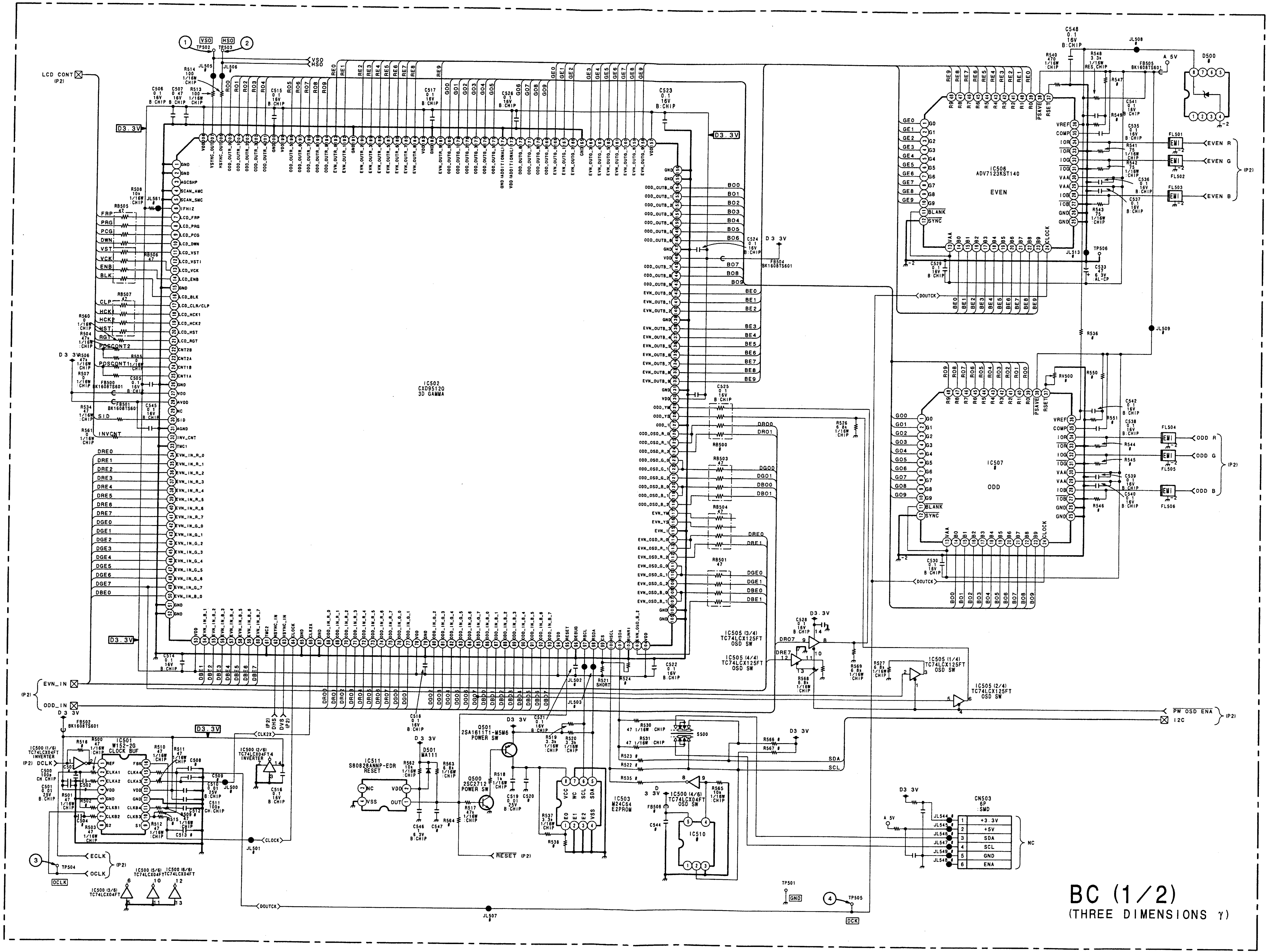
1

2

3

4

5


LCD CONT (P2)
VSO
HSO
TP502
TP503
D3.3V
IC502 CXD9512Q 3D GAMMA
IC506 ADV7123KST140 EVEN
IC507 ODD
EVEN R
EVEN G
EVEN B
ODD R
ODD G
ODD B
(P2)
FL501
FL502
FL503
FL504
FL505
FL506
D500
EVN_IN
ODD_IN
DCLK
IC501 MI52-2G CLOCK BUF
IC500 (1/6) TC74LCX04FT INVERTER
IC500 (2/6) TC74LCX04FT INVERTER
IC511 S80828ANNP-EDR RESET
D501 MA111
Q501 2SA1611T1-M5M6 POWER SW
Q500 2SC2712 POWER SW
IC503 M24C64 E2PROM
IC510
S500
IC500 (4/6) TC74LCX04FT OSD SW
IC505 (3/4) TC74LCX125FT OSD SW
IC505 (4/4) TC74LCX125FT OSD SW
IC505 (1/4) TC74LCX125FT OSD SW
IC505 (2/4) TC74LCX125FT OSD SW
PW OSD ENA
I2C
SDA
SCL
CN503 6P SMD
+3.3V
+5V
SDA
SCL
GND
ENA
NC
RESET (P2)
CLOCK
DOUTCK
ECLK
OCLK
TP504
TP501
TP505
GND
DCK
JL507
IC500 (3/6) TC74LCX04FT
IC500 (5/6) TC74LCX04FT
IC500 (6/6) TC74LCX04FT
BC (1/2)
(THREE DIMENSIONS γ)
B-SS1696<08 >-BC -P1

A | B | C | D | E | F | G | H

VPL-PX20/PX30

SONY-SP01178/DRUCK40

- Refer to page 9-25 for Printed Wiring Board
- Refer to page 9-27 for Waveforms

1
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3
4
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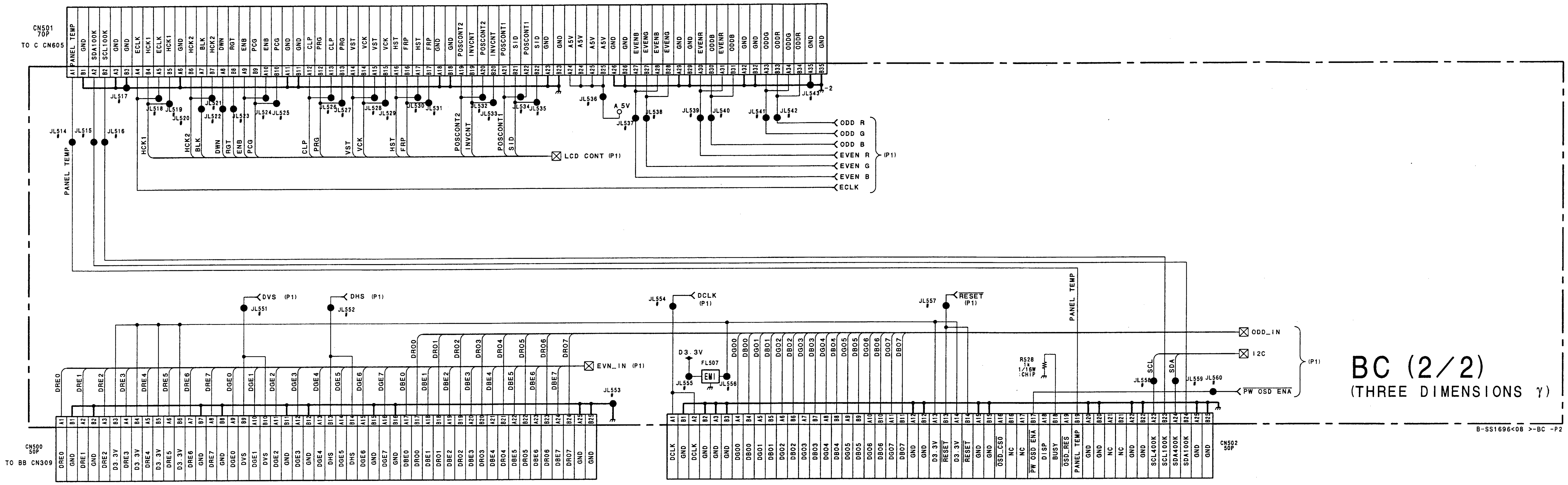
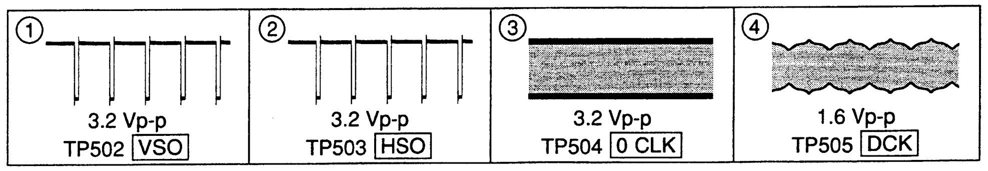

CN501 70P TO C CN605
PANEL TEMP GND SDA100K SCL100K GND GND ECLK HCK1 ECLK HCK1 GND HCK2 BLK HCK2 DWN RGT ENB PCG ENB PCG GND GND CLP PRG CLP PRG VST VCK VST VCK HST FRP HST FRP GND GND POSCONT2 INVCNT POSCONT2 INVCNT POSCONT1 SID POSCONT1 SID GND GND A5V A5V A5V A5V GND GND EVENB EVENG EVENB EVENG GND GND EVENR ODDB EVENR ODDB GND GND ODDG ODDR ODDG ODDR GND GND
JL514 JL515 JL516 JL517 JL518 JL519 JL520 JL521 JL522 JL523 JL524 JL525 JL526 JL527 JL528 JL529 JL530 JL531 JL532 JL533 JL534 JL535 JL536 JL537 JL538 JL539 JL540 JL541 JL542 JL543
A 5V
LCD CONT (P1)
ODD R
ODD G
ODD B
EVEN R
EVEN G
EVEN B
ECLK
(P1)
PANEL TEMP
DVS (P1)
DHS (P1)
JL551 JL552 JL553 JL554 JL555 JL556 JL557 JL558 JL559 JL560
DCLK (P1)
RESET (P1)
D3 3V
FL507
EMI
R528 1k 1/16W CHIP
EVN_IN (P1)
ODD_IN
I2C
PW OSD ENA
(P1)
SCL
SDA
BC (2/2)
(THREE DIMENSIONS γ)
CN500 50P TO BB CN309
DRE0 GND DRE1 GND DRE2 D3 3V D3 3V D3 3V DRE4 D3 3V DRE5 GND DRE6 GND DRE7 GND DGE0 DVS DGE1 DVS DGE2 GND DGE3 GND DGE4 DHS DGE5 DHS DGE6 GND DGE7 GND DBE0 DRO0 DBE1 DRO1 DBE2 DRO2 DBE3 DRO3 DBE4 DRO4 DBE5 DRO5 DBE6 DRO6 DBE7 DRO7 GND GND
CN502 50P
DCLK GND DCLK GND GND GND DGO0 DBO0 DGO1 DBO1 DGO2 DBO2 DGO3 DBO3 DGO4 DBO4 DGO5 DBO5 DGO6 DBO6 DGO7 DBO7 GND GND D3 3V RESET D3 3V RESET GND GND OSD_CSO NC NC PW OSD ENA DISP BUSY OSD_RES PANEL TEMP GND GND NC NC GND GND SCL400K SCL100K SDA400K SDA100K GND GND
B-SS1696<08>-BC-P2

BC Board Waveforms

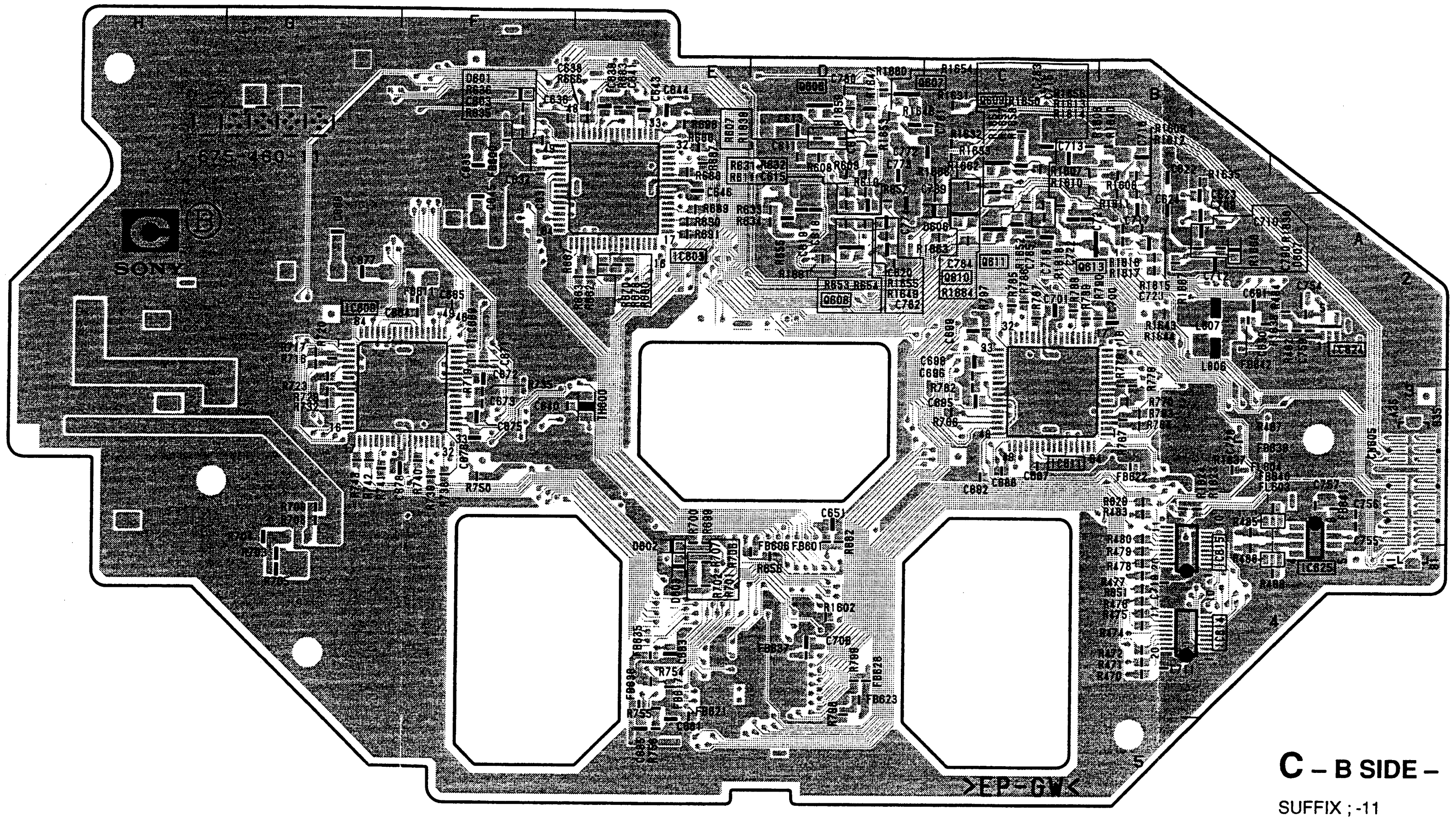


C C

C

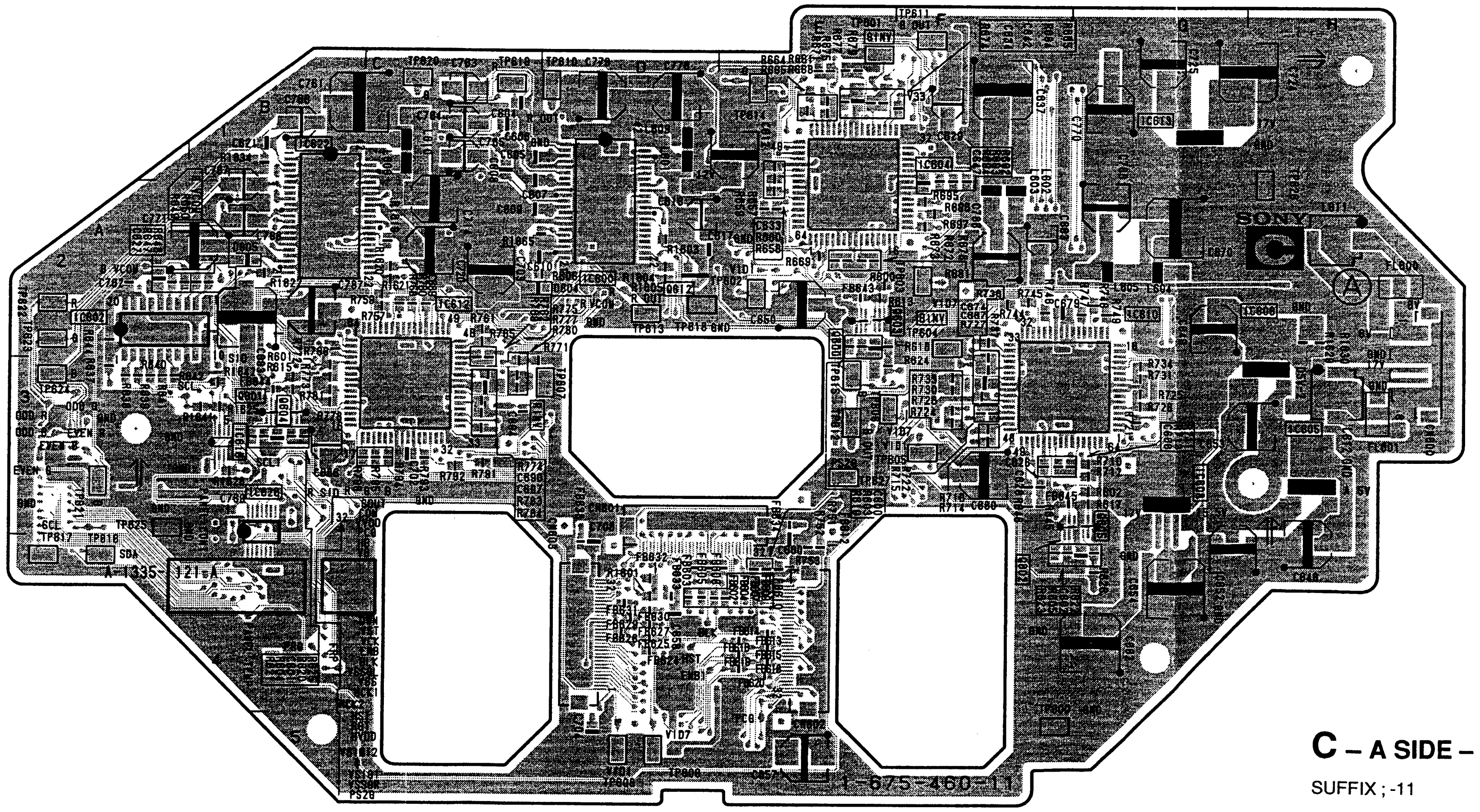
1-675-460-11

IC600	D-2
IC603	* E-2
IC604	F-1
IC608	G-3
IC609	* G-2
IC611	* C-3
IC612	C-2
IC614	* B-4
IC615	* B-4
IC618	B-3
IC622	B-1
IC624	* A-2
IC625	* A-4
IC626	B-3
IC805	H-3
IC806	H-2
IC810	G-2
IC813	G-1
Q600	E-2
Q601	B-3
Q602	F-4
Q603	F-2
Q604	B-3
Q605	G-3
Q606	* D-1
Q607	* C-1
Q608	* D-2
Q609	* C-1
Q610	* C-2
Q611	* C-2
Q612	D-2
Q613	* C-2
TP601	E-1
TP602	E-2
TP603	F-2
TP604	F-2
TP605	F-3
TP606	F-3
TP607	D-3
TP608	D-5
TP609	D-5
TP610	D-1
TP611	F-1
TP612	E-3
TP613	D-2
TP614	E-1
TP615	E-3
TP616	A-4
TP617	A-4
TP618	D-2
TP619	C-1
TP620	C-1
TP621	A-3
TP622	A-2
TP623	A-2
TP625	A-3
TP627	E-3
TP628	H-2



C – B SIDE –

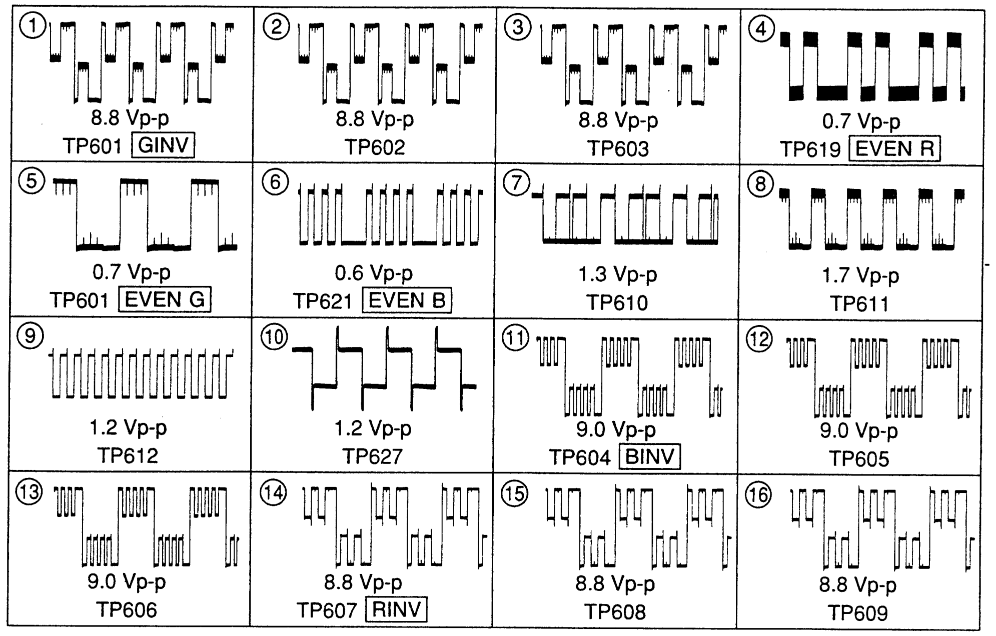
SUFFIX ; -11



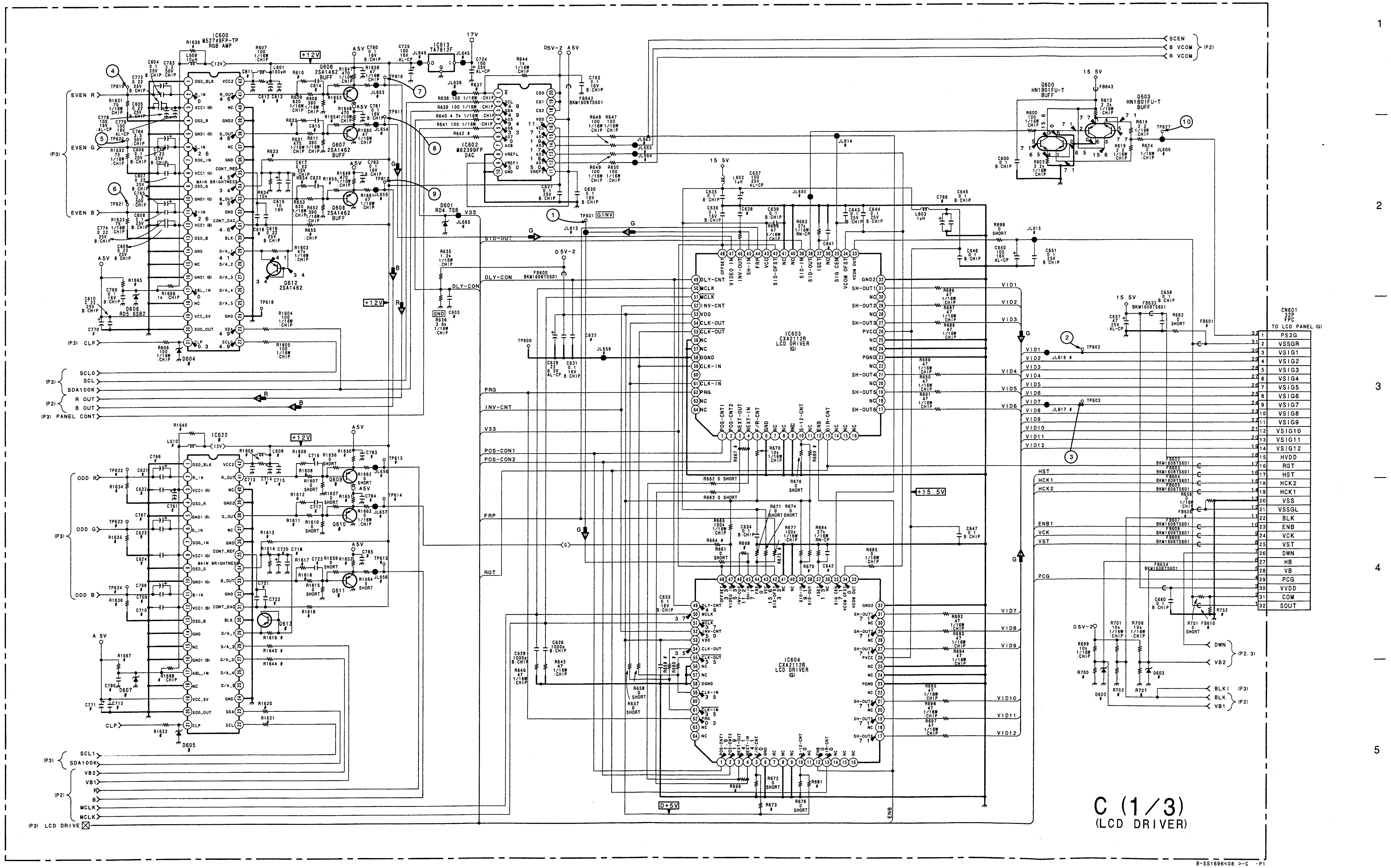
C – A SIDE –

SUFFIX ; -11

C Board Waveforms



- Refer to page 9-28 for Printed Wiring Board
- Refer to page 9-28 for Waveforms
- Refer to page 9-31 for IC Block Diagrams


1
2
3
4
5
IC600
M52749FP-TP
RGB AMP
IC622
IC613
TA7812F
IC602
M62399FP
DAC
IC603
CXA2112R
LCD DRIVER
(G)
IC604
CXA2112R
LCD DRIVER
(G)
Q600
HN1B01FU-T
BUFF
Q603
HN1B01FU-T
BUFF
Q606
2SA1462
BUFF
Q607
2SA1462
BUFF
Q608
2SA1462
BUFF
Q612
2SA1462
CN601
32P
FPC
TO LCD PANEL (G)
EVEN R
EVEN G
EVEN B
ODD R
ODD G
ODD B
(P3)
(P2)
SCL0
SCL
SDA100K
R OUT
B OUT
(P3) PANEL CONT
SCL1
SDA100K
VB2
VB1
R
B
MCLK
MCLK
(P3) LCD DRIVE
SCEN
B VCOM
R VCOM
17V
A5V
D5V-2
15.5V
+12V
+15.5V
D+5V
SID-OUT
DLY-CON
PRG
INV-CNT
V33
POS-CON1
POS-CON2
FRP
RGT
HST
HCK1
HCK2
ENB1
VCK
VST
PCG
ENB
VID1
VID2
VID3
VID4
VID5
VID6
VID7
VID8
VID9
VID10
VID11
VID12
PS2G
VSSGR
VSIG1
VSIG2
VSIG3
VSIG4
VSIG5
VSIG6
VSIG7
VSIG8
VSIG9
VSIG10
VSIG11
VSIG12
HVDD
RGT
HST
HCK2
HCK1
VSS
VSSGL
BLK
ENB
VCK
VST
DWN
HB
VB
PCG
VVDD
COM
SOUT
DWN
VB2
(P2, 3)
BLK1
BLK
VB1
TP600
TP601
TP602
TP603
TP610
TP611
TP612
TP613
TP614
TP615
TP618
TP619
TP620
TP621
TP622
TP623
TP624
TP627
D601
RD4.7SB
D606
RD5.6SB2
C (1/3)
(LCD DRIVER)
B-SS1696<08 >-C -P1

VPL-PX20/PX30

A | B | C | D | E | F | G | H

- Refer to page 9-28 for Printed Wiring Board
- Refer to page 9-28 for Waveforms
- Refer to page 9-31 for IC Block Diagrams

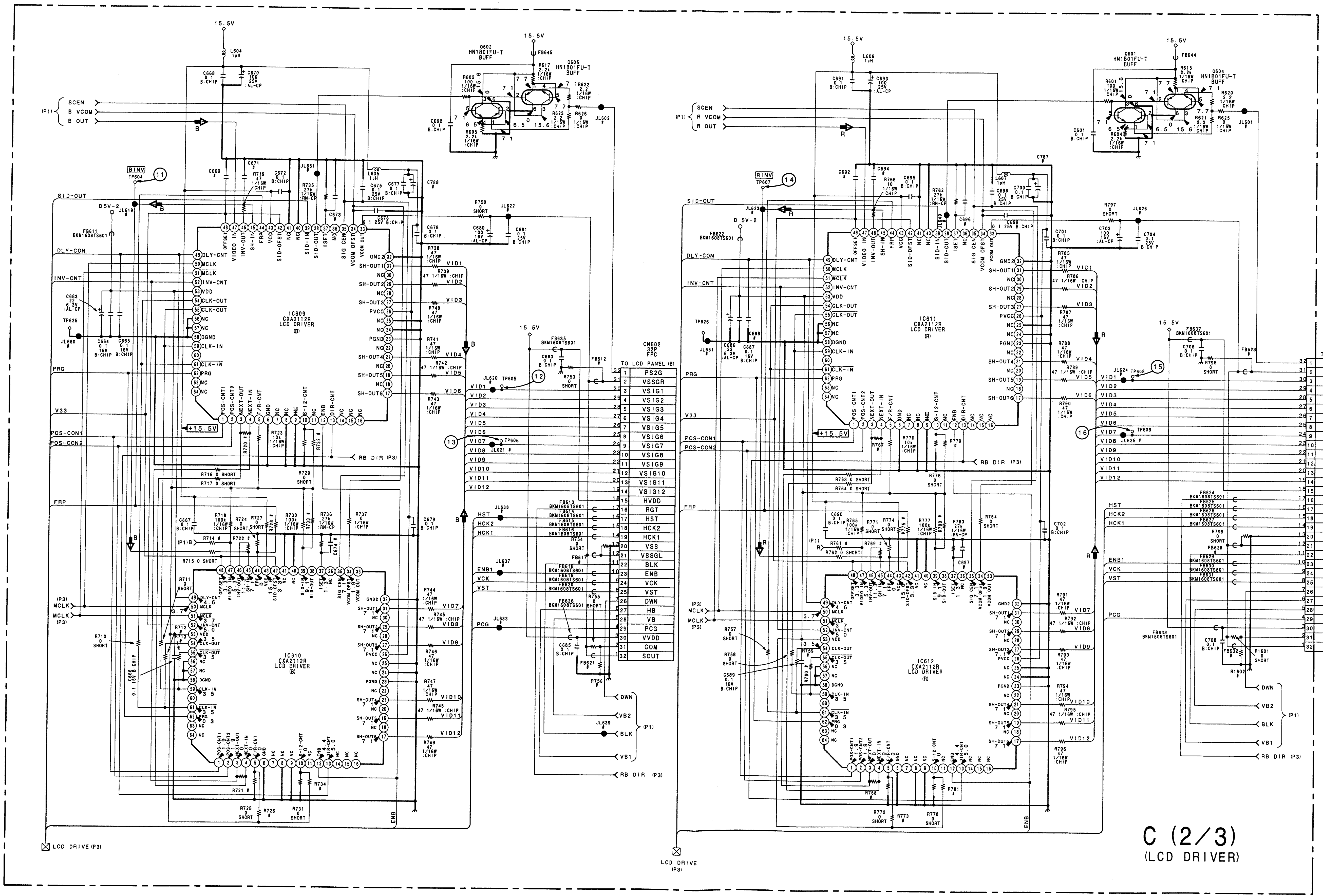
1

2

3

4

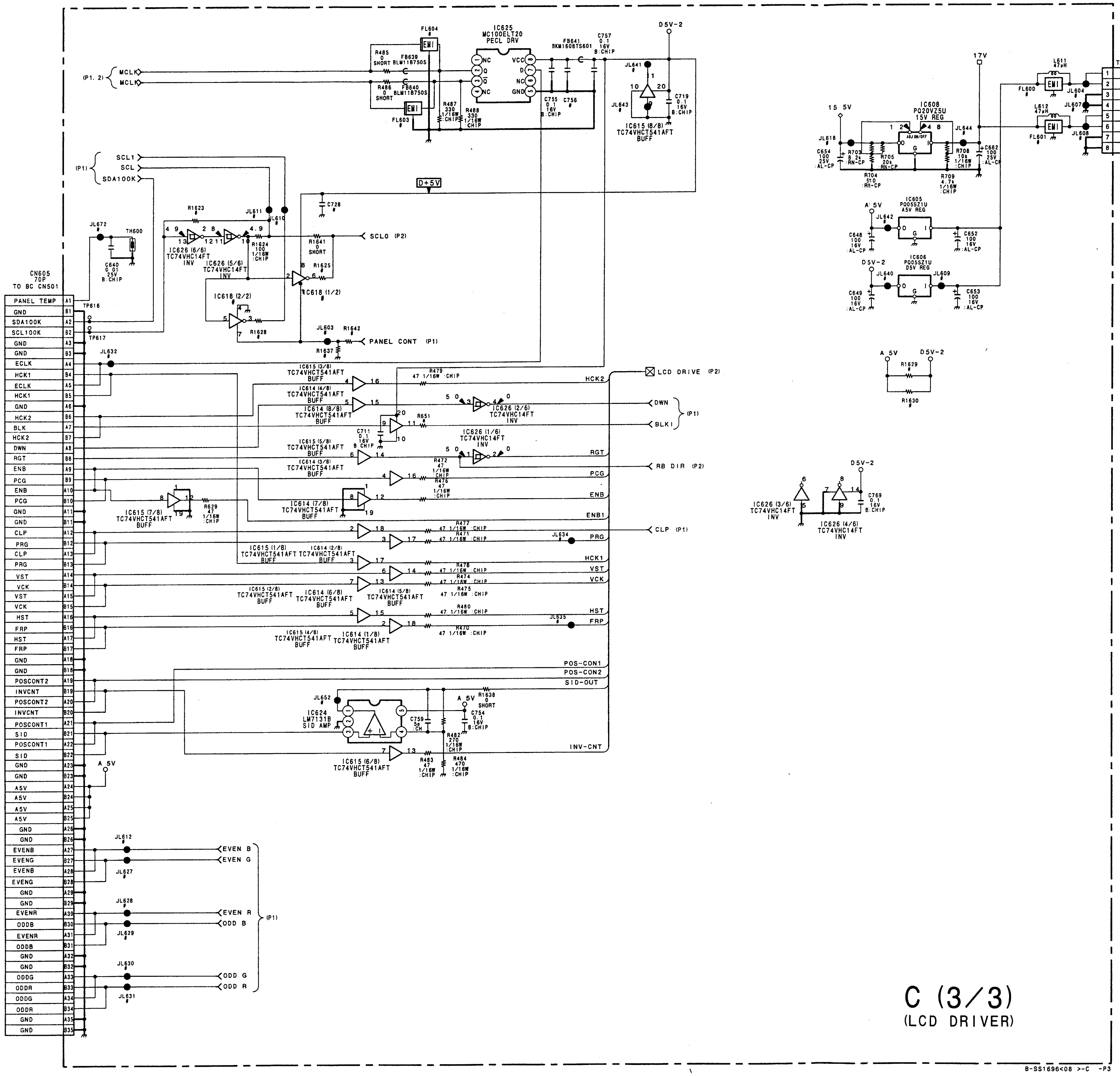
5


15.5V
L604 1μH
L606 1μH
Q602 HN1B01FU-T BUFF
Q605 HN1B01FU-T BUFF
Q601 HN1B01FU-T BUFF
Q604 HN1B01FU-T BUFF
FB645
FB644
(P1)
SCEN
B VCOM
B OUT
R VCOM
R OUT
B
R
BINV
TP604
RINV
TP607
11
12
13
14
15
16
SID-OUT
D5V-2
JL619
JL623
FB611 BKM1608TS601
FB622 BKM1608TS601
DLY-CON
INV-CNT
PRG
V33
POS-CON1
POS-CON2
FRP
TP625
TP626
JL660
JL661
IC609 CXA2112R LCD DRIVER (B)
IC610 CXA2112R LCD DRIVER (B)
IC611 CXA2112R LCD DRIVER (R)
IC612 CXA2112R LCD DRIVER (R)
OFFSET
VIDEO IN
INV-OUT
SH-IN
FRP
VCC
SID-OFST
NC
SID-IN
SID-OUT
ISET
SIG CEN
VCOM OUT
GND2
SH-OUT1
SH-OUT2
SH-OUT3
PVCC
PGND
SH-OUT4
SH-OUT5
SH-OUT6
DLY-CNT
MCLK
INV-CNT
VDD
CLK-OUT
DGND
CLK-IN
PRG
POS-CNT1
POS-CNT2
NEXT-IN
F/R-CNT
GND
S-12-CNT
ENB
DIR-CNT
+15.5V
VID1
VID2
VID3
VID4
VID5
VID6
VID7
VID8
VID9
VID10
VID11
VID12
RB DIR (P3)
(P1B)
(P3) MCLK
MCLK (P3)
JL620 TP605
JL621
TP606
JL624 TP608
JL625
TP609
JL622
JL626
JL638
JL637
JL633
JL639
HST
HCK2
HCK1
ENB1
VCK
VST
PCG
CN602 32P FPC TO LCD PANEL (B)
CN603 32P FPC TO LCD PANEL (R)
1 PS2G
2 VSSGR
3 VSIG1
4 VSIG2
5 VSIG3
6 VSIG4
7 VSIG5
8 VSIG6
9 VSIG7
10 VSIG8
11 VSIG9
12 VSIG10
13 VSIG11
14 VSIG12
15 HVDD
16 RGT
17 HST
18 HCK2
19 HCK1
20 VSS
21 VSSGL
22 BLK
23 ENB
24 VCK
25 VST
26 DWN
27 HB
28 VB
29 PCG
30 VVDD
31 COM
32 SOUT
DWN
VB2
BLK
VB1
(P1)
RB DIR (P3)
ENB
LCD DRIVE (P3)
C (2/3)
(LCD DRIVER)

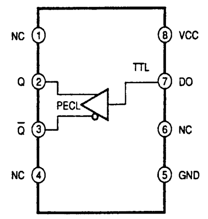
B-SS1696<08 >-C -P2

A | B | C | D | E | F | G | H

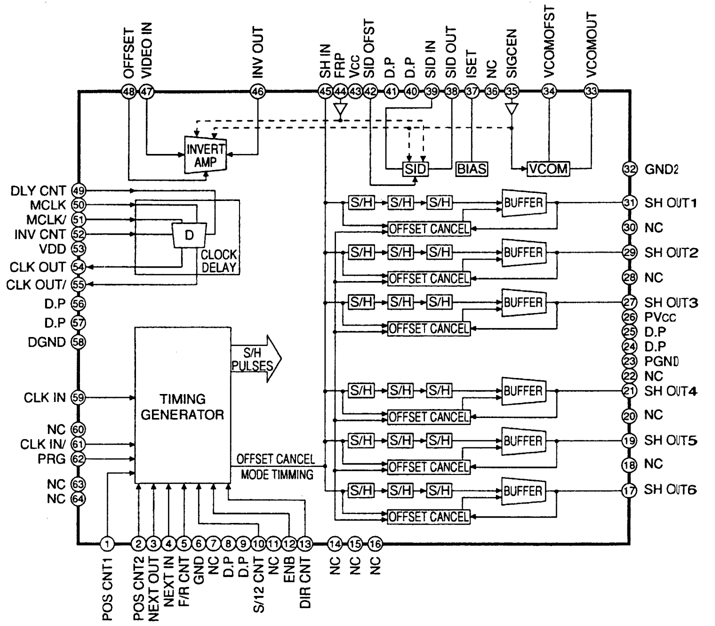
- Refer to page 9-28 for Printed Wiring Board
- Refer to page 9-28 for Waveforms
- Refer to page 9-31 for IC Block Diagrams


C (3/3)
(LCD DRIVER)
CN605 70P TO BC CN501
CN600 8P SMD TO GA CN2104
IC625 MC100ELT20 PECL DRV
IC608 PQ20VZ5U 15V REG
IC605 PQ05SZ1U A5V REG
IC606 PQ05SZ1U D5V REG
IC624 LM7131B SID AMP
IC615 TC74VHCT541AFT BUFF
IC614 TC74VHCT541AFT BUFF
IC626 TC74VHC14FT INV
IC618
D+5V
D5V-2
A 5V
15 5V
17V
MCLK
SCL1
SCL
SDA100K
SCL0 (P2)
PANEL CONT (P1)
LCD DRIVE (P2)
DWN
BLK
RB DIR (P2)
CLP (P1)
HCK2
RGT
PCG
ENB
ENB1
PRG
HCK1
VST
VCK
HST
FRP
POS-CON1
POS-CON2
SID-OUT
INV-CNT
EVEN B
EVEN G
EVEN R
ODD B
ODD G
ODD R
B-SS1696<08 >-C -P3

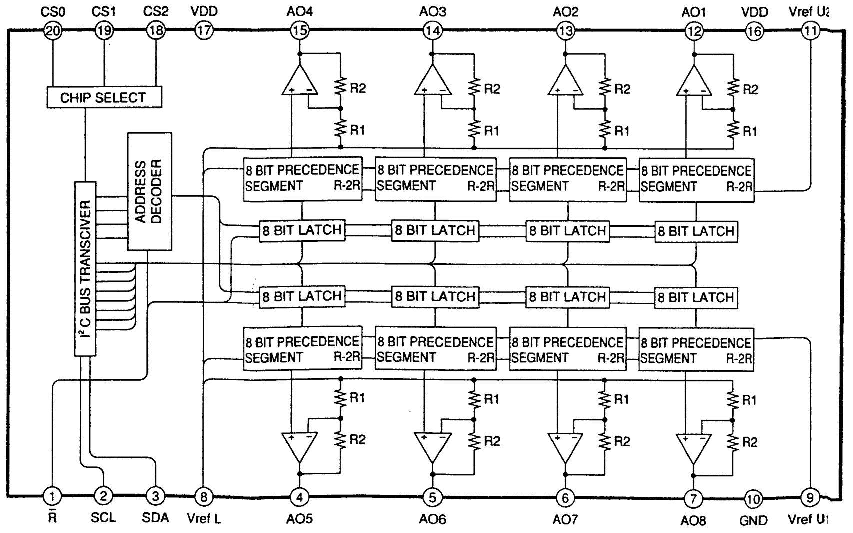
MC100ELT20 (IC625)


NC ①
Q ②
Q̄ ③
NC ④
⑧ VCC
⑦ DO
⑥ NC
⑤ GND
TTL
PECL

CXA2112R (IC603, 604, 609, 610, 611, 612)


OFFSET
VIDEO IN
INV OUT
SH IN
FRP
Vcc
SID OFST
D.P
D.P
SID IN
SID OUT
ISET
NC
SIGCEN
VCOMOFST
VCOMOUT
INVERT AMP
SID
BIAS
VCOM
GND2
DLY CNT
MCLK
MCLK/
INV CNT
VDD
CLK OUT
CLK OUT/
D.P
D.P
DGND
CLK IN
NC
CLK IN/
PRG
NC
NC
D
CLOCK DELAY
TIMING GENERATOR
S/H PULSES
OFFSET CANCEL MODE TIMMING
S/H
BUFFER
OFFSET CANCEL
SH OUT1
NC
SH OUT2
NC
SH OUT3
PVcc
D.P
D.P
PGND
NC
SH OUT4
NC
SH OUT5
NC
SH OUT6
POS CNT1
POS CNT2
NEXT OUT
NEXT IN
F/R CNT
GND
NC
D.P
D.P
S/12 CNT
NC
ENB
DIR CNT
NC
NC
NC

M62399FP (IC602)

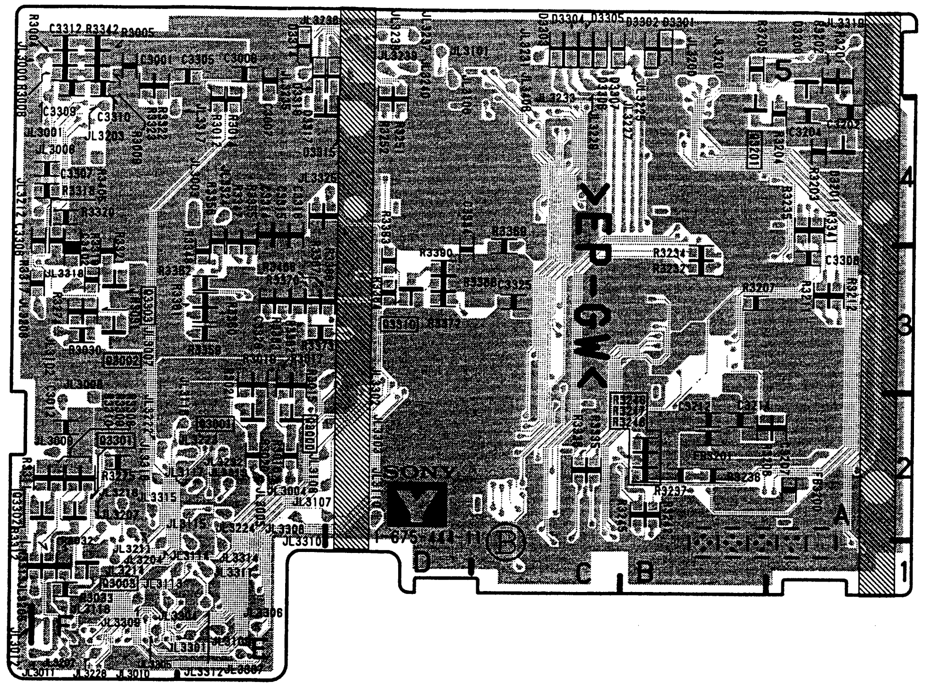

CS0
CS1
CS2
VDD
AO4
AO3
AO2
AO1
VDD
Vref U
CHIP SELECT
ADDRESS DECODER
I²C BUS TRANSCIVER
8 BIT PRECEDENCE SEGMENT R-2R
8 BIT LATCH
R1
R2
R̄
SCL
SDA
Vref L
AO5
AO6
AO7
AO8
GND
Vref U

Y

1-675-444-11

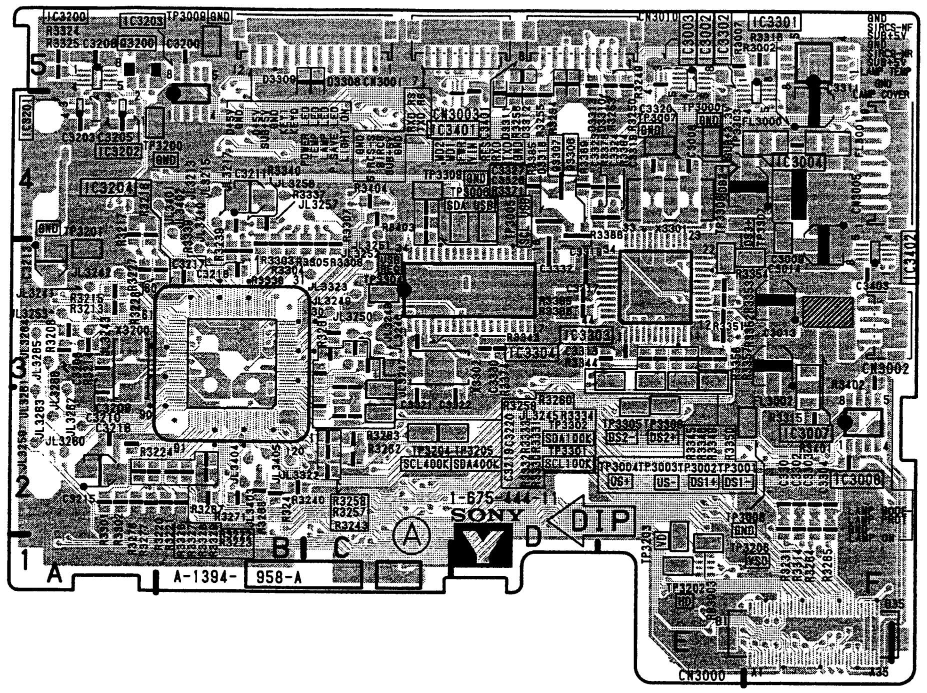
IC3002	E-5
IC3003	E-5
IC3004	F-4
IC3007	F-2
IC3008	F-2
IC3200	A-5
IC3201	A-4
IC3202	A-4
IC3203	B-5
IC3204	A-4
IC3301	F-5
IC3302	E-5
IC3303	E-3
IC3304	D-3
IC3402	F-3
Q3000	* E-2
Q3001	* E-2
Q3003	* F-1
Q3200	A-5
Q3201	* B-4
Q3301	* F-2
Q3302	* F-2
Q3303	* F-3
Q3306	D-4
Q3307	D-4
Q3310	* D-3
TP3000	E-4
TP3001	E-2
TP3002	E-2
TP3003	E-2
TP3004	E-2
TP3005	D-4
TP3006	D-4
TP3007	E-4
TP3008	F-2
TP3200	B-4
TP3201	A-3
TP3202	E-1
TP3203	E-1
TP3204	C-2
TP3205	D-2
TP3206	F-1
TP3301	D-2
TP3302	D-2
TP3303	E-4
TP3305	E-2
TP3306	E-2
TP3307	F-4
TP3308	E-4
TP3309	C-4

*:B Side mount


>EP-GW<
SONY
Y
B
A
B
C
D
1
2
3
4
5

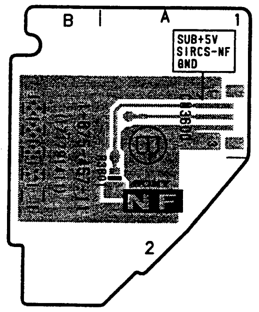
Y – B SIDE –

SUFFIX ; -11


1-675-444-11
SONY
Y
DIP
A-1394-958-A
A
B
C
D
E
F
1
2
3
4
5
CN3000

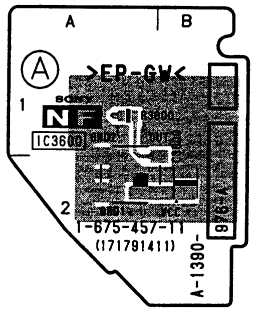
Y – A SIDE –

SUFFIX ; -11


B
A
1
SUB+5V
SIRCS-NF
GND
B
NF
2

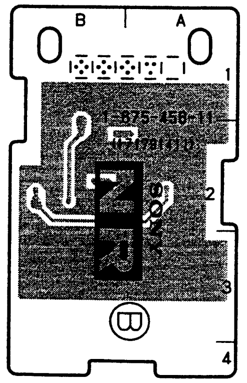
NF – B SIDE –

SUFFIX ; -11


A
B
A
>EP-GW<
SONY
NF
IC3600
1
2
1-675-457-11
(171781411)
A-1390-

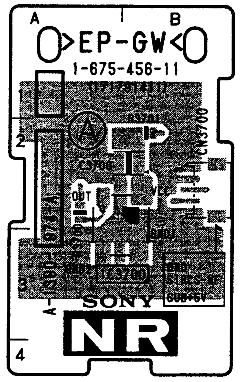
NF – A SIDE –

SUFFIX ; -11


B
A
1-675-456-11
NR
B
1
2
3
4

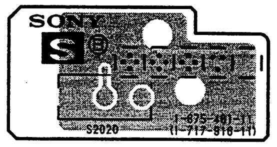
NR – B SIDE –

SUFFIX ; -11


A
B
>EP-GW<
1-675-456-11
A
CN3700
IC3700
SONY
NR
1
2
3
4

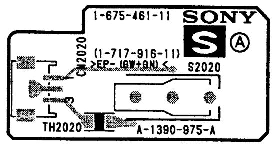
NR – A SIDE –

SUFFIX ; -11


SONY
S
B
S2020
1-675-461-11
(1-717-916-11)

S – B SIDE –

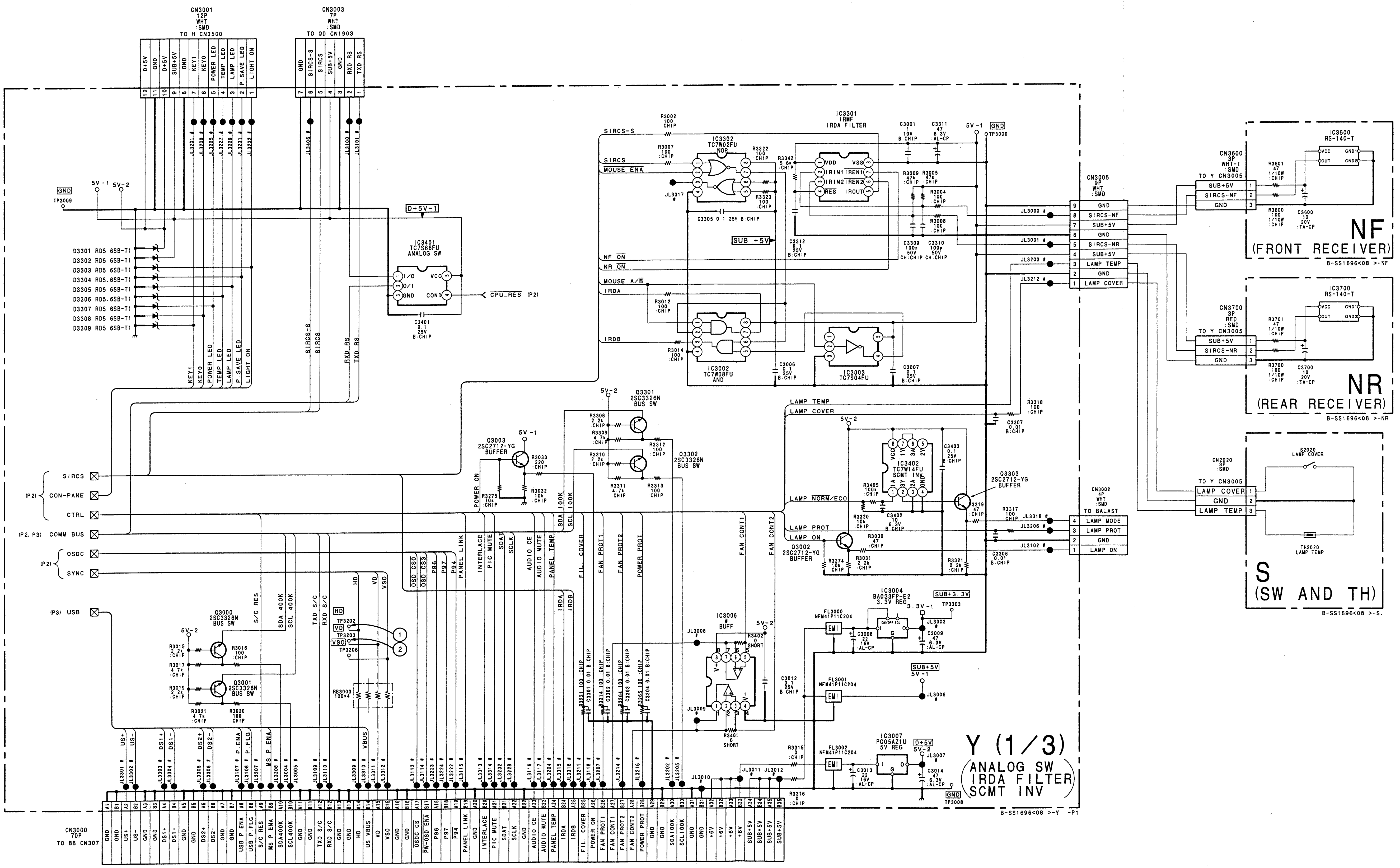
SUFFIX ; -11


1-675-461-11
SONY
S
A
(1-717-916-11)
>EP-(GW+BH)<
S2020
CN2020
TH2020
A-1390-975-A

S – A SIDE –

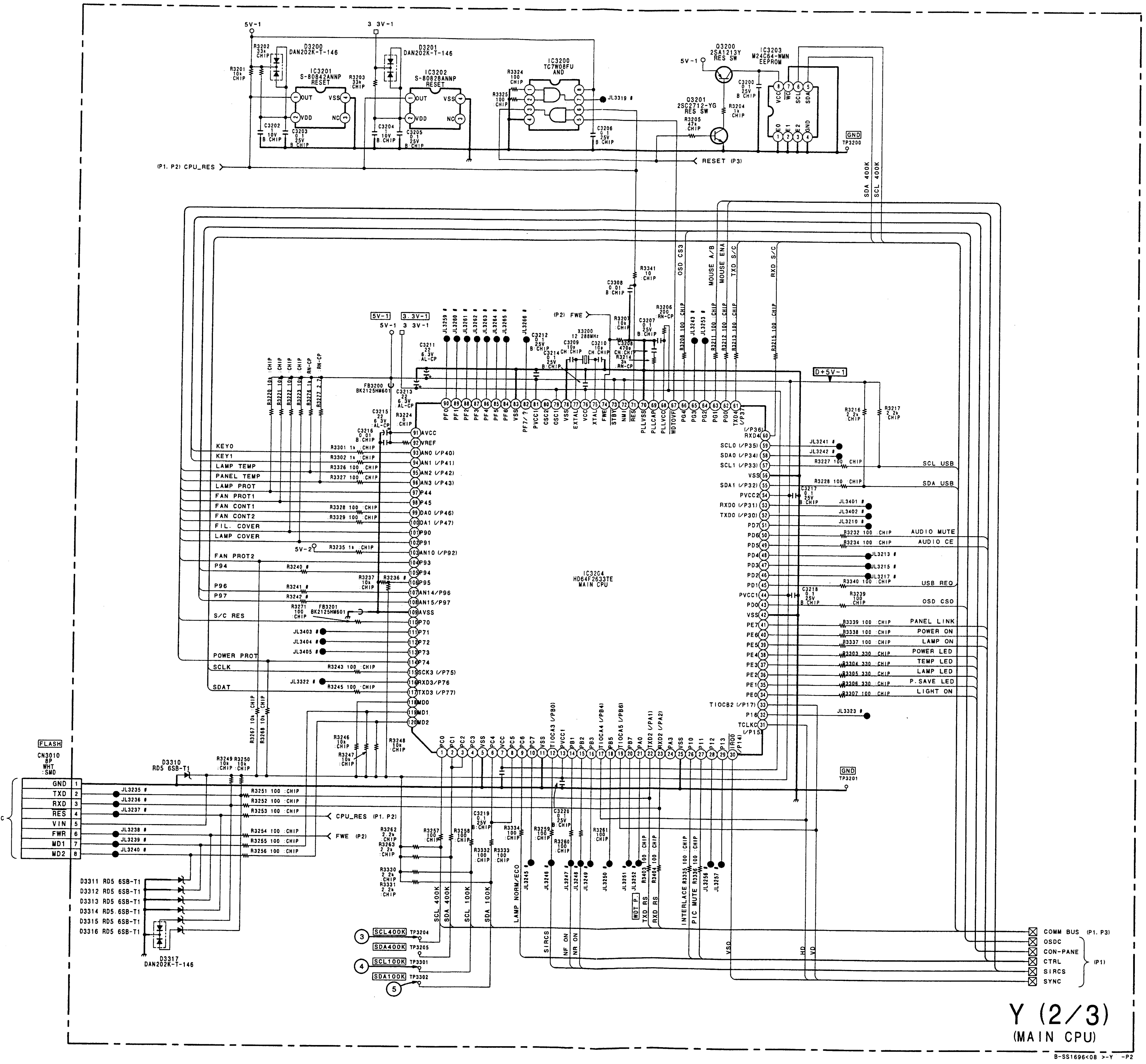
SUFFIX ; -11

- Refer to page 9-32 for Printed Wiring Board
- Refer to page 9-35 for Waveforms
- Refer to page 9-35 for IC Block Diagrams

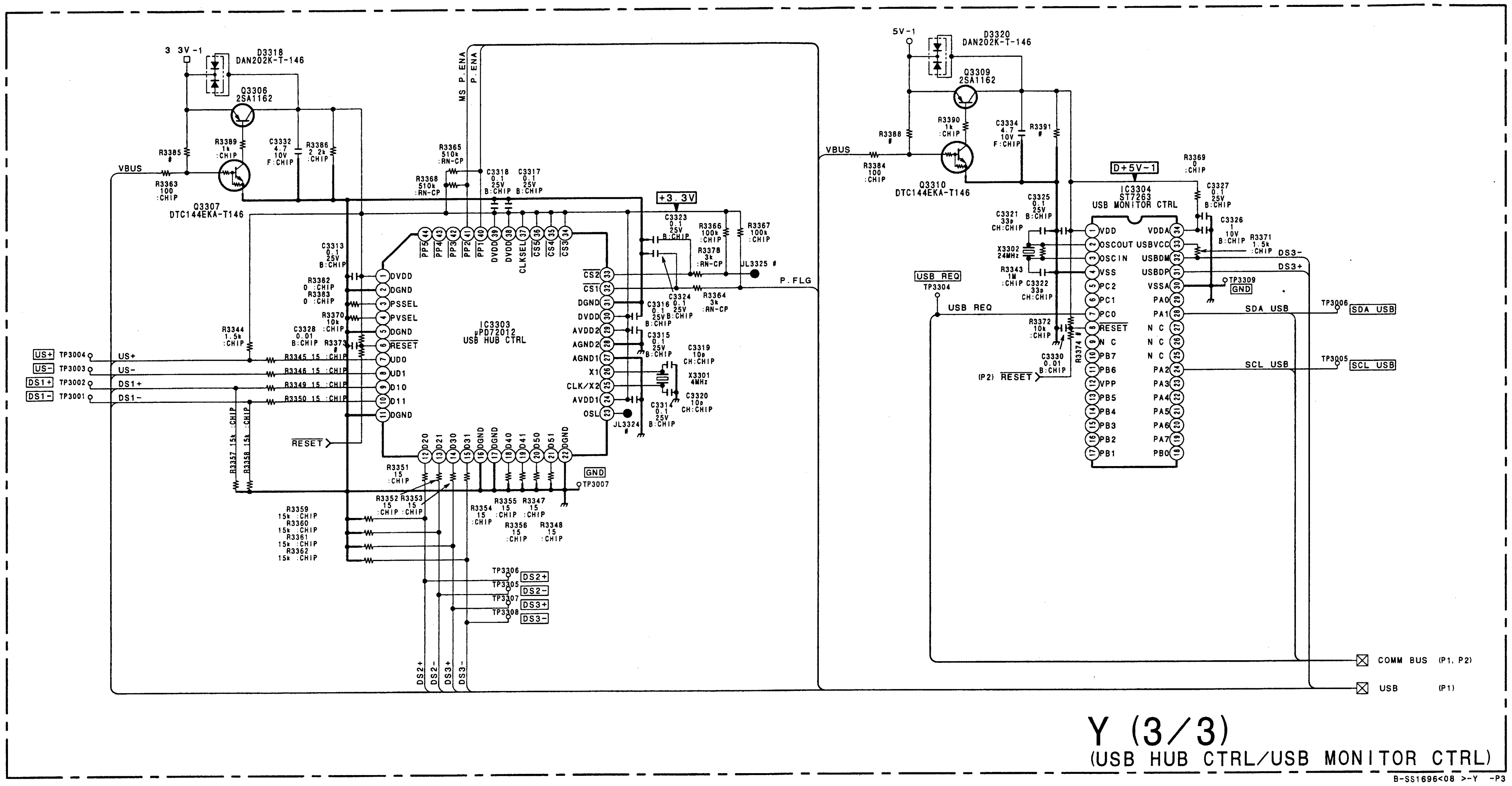


CN3001 12P WHT :SMD TO H CN3500
D+5V
GND
D+5V
SUB+5V
GND
KEY1
KEY0
POWER LED
TEMP LED
LAMP LED
P SAVE LED
LIGHT ON
CN3003 7P WHT :SMD TO OD CN1903
GND
SIRCS-S
SIRCS
SUB+5V
GND
RXD RS
TXD RS
GND
TP3009
5V-1
5V-2
D3301 RD5 6SB-T1
D3302 RD5 6SB-T1
D3303 RD5 6SB-T1
D3304 RD5 6SB-T1
D3305 RD5 6SB-T1
D3306 RD5 6SB-T1
D3307 RD5 6SB-T1
D3308 RD5 6SB-T1
D3309 RD5 6SB-T1
D+5V-1
IC3401 TC7S66FU ANALOG SW
CPU_RES (P2)
C3401 0.1 25V B:CHIP
SIRCS-S
SIRCS
MOUSE ENA
IC3302 TC7W02FU NOR
IC3301 IRMF IRDA FILTER
VDD VSS
IRIN1 IRENT
IRIN2 IRENZ
RES IROUT
C3305 0.1 25V B:CHIP
SUB+5V
NF ON
NR ON
MOUSE A/B
IRDA
IRDB
IC3002 TC7W08FU AND
IC3003 TC7S04FU
5V-1
GND
TP3000
CN3005 9P WHT :SMD
GND
SIRCS-NF
SUB+5V
GND
SIRCS-NR
SUB+5V
LAMP TEMP
GND
LAMP COVER
CN3600 3P WHT-1 :SMD TO Y CN3005
SUB+5V
SIRCS-NF
GND
IC3600 RS-140-T
VCC GND
OUT GND
NF
(FRONT RECEIVER)
B-SS1696<08 >-NF
CN3700 3P RED :SMD TO Y CN3005
SUB+5V
SIRCS-NR
GND
IC3700 RS-140-T
NR
(REAR RECEIVER)
B-SS1696<08 >-NR
CN2020 3P :SMD TO Y CN3005
LAMP COVER
GND
LAMP TEMP
S2020 LAMP COVER
TH2020 LAMP TEMP
S
(SW AND TH)
B-SS1696<08 >-S
Q3301 2SC3326N BUS SW
Q3302 2SC3326N BUS SW
Q3003 2SC2712-YG BUFFER
POWER ON
LAMP TEMP
LAMP COVER
IC3402 TC7W14FU SCMT INV
Q3303 2SC2712-YG BUFFER
LAMP NORM/ECO
LAMP PROT
LAMP ON
Q3002 2SC2712-YG BUFFER
CN3002 4P WHT :SMD TO BALAST
LAMP MODE
LAMP PROT
GND
LAMP ON
SIRCS
(P2) CON-PANE
CTRL
(P2, P3) COMM BUS
OSDC
(P2) SYNC
(P3) USB
Q3000 2SC3326N BUS SW
Q3001 2SC3326N BUS SW
HD
VD
VSO
TP3202
TP3203
TP3206
RB3003 100×4
IC3006 BUFF
IC3004 BA033FP-E2 3.3V REG
SUB+3.3V
TP3303
FL3000 NFM41P11C204
FL3001 NFM41P11C204
FL3002 NFM41P11C204
SUB+5V
IC3007 PQ05AZ1U 5V REG
D+5V
5V-2
GND
TP3008
Y (1/3)
(ANALOG SW IRDA FILTER SCMT INV)
B-SS1696<08 >-Y -P1
CN3000 70P TO BB CN307
GND
US+
US-
DS1+
DS1-
DS2+
DS2-
USB P ENA
USB P FLG
S/C RES
MS P. ENA
SDA400K
SCL400K
TXD S/C
RXD S/C
US VBUS
HD
VD
VSO
OSDC CS
PW-OSD ENA
P96
P97
P94
PANEL LINK
INTERLACE
PIC MUTE
SDAT
SCLK
AUDIO CE
AUDIO MUTE
PANEL TEMP
IRDA
IRDB
FIL COVER
POWER ON
FAN PROT1
FAN CONT1
FAN PROT2
FAN CONT2
POWER PROT
SDA100K
SCL100K
+6V
SUB+5V

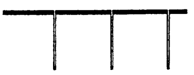
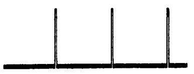
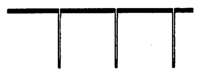
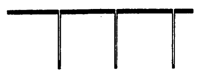
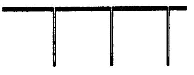
- Refer to page 9-32 for Printed Wiring Board
- Refer to page 9-35 for Waveforms
- Refer to page 9-35 for IC Block Diagrams


1
2
3
4
5
5V-1
3.3V-1
D3200
DAN202K-T-146
D3201
DAN202K-T-146
IC3201
S-80842ANNP
RESET
IC3202
S-80828ANNP
RESET
IC3200
TC7W08FU
AND
Q3200
2SA1213Y
RES SW
IC3203
M24C64-WMN
EEPROM
Q3201
2SC2712-YG
RES SW
(P1, P2) CPU_RES
RESET (P3)
GND
TP3200
SDA 400K
SCL 400K
OSD CS3
MOUSE A/B
MOUSE ENA
TXD S/C
RXD S/C
(P2) FWE
X3200
12.288MHz
D+5V-1
IC3204
HD64F2633TE
MAIN CPU
KEY0
KEY1
LAMP TEMP
PANEL TEMP
LAMP PROT
FAN PROT1
FAN CONT1
FAN CONT2
FIL. COVER
LAMP COVER
FAN PROT2
P94
P96
P97
S/C RES
POWER PROT
SCLK
SDAT
SCL USB
SDA USB
AUDIO MUTE
AUDIO CE
USB REQ
OSD CSO
PANEL LINK
POWER ON
LAMP ON
POWER LED
TEMP LED
LAMP LED
P.SAVE LED
LIGHT ON
FLASH
CN3010
8P
WHT
SMD
NC
GND
TXD
RXD
RES
VIN
FWR
MD1
MD2
CPU_RES (P1, P2)
FWE (P2)
D3310 RD5.6SB-T1
D3311 RD5.6SB-T1
D3312 RD5.6SB-T1
D3313 RD5.6SB-T1
D3314 RD5.6SB-T1
D3315 RD5.6SB-T1
D3316 RD5.6SB-T1
D3317
DAN202K-T-146
SCL 400K
SDA 400K
SCL 100K
SDA 100K
LAMP NORM/ECO
SIRCS
NF ON
NR ON
WDT R
TXD RS
RXD RS
INTERLACE
PIC MUTE
VSO
HD
VD
SCL400K TP3204
SDA400K TP3205
SCL100K TP3301
SDA100K TP3302
3
4
5
GND
TP3201
COMM BUS (P1, P3)
OSDC
CON-PANE
CTRL
SIRCS
SYNC
(P1)
Y (2/3)
(MAIN CPU)
B-SS1696<08>-Y -P2

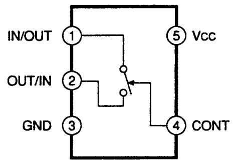
- Refer to page 9-32 for Printed Wiring Board
- Refer to page 9-35 for Waveforms
- Refer to page 9-35 for IC Block Diagrams


3.3V-1
D3318 DAN202K-T-146
Q3306 2SA1162
Q3307 DTC144EKA-T146
VBUS
MS P.ENA
P.ENA
+3.3V
IC3303 µPD72012 USB HUB CTRL
DVDD
DGND
PSSEL
PVSEL
DGND
RESET
UDD
UD1
D10
D11
DGND
CS2
CS1
DGND
DVDD
AVDD2
AGND2
AGND1
X1
CLK/X2
AVDD1
OSL
X3301 48MHz
P.FLG
US+ TP3004
US- TP3003
DS1+ TP3002
DS1- TP3001
US+
US-
DS1+
DS1-
RESET
GND TP3007
TP3306 DS2+
TP3305 DS2-
TP3307 DS3+
TP3308 DS3-
DS2+
DS2-
DS3+
DS3-
5V-1
D3320 DAN202K-T-146
Q3309 2SA1162
Q3310 DTC144EKA-T146
VBUS
D+5V-1
IC3304 ST7263 USB MONITOR CTRL
VDD
OSCOUT
OSCIN
VSS
PC2
PC1
PC0
RESET
NC
PB7
PB6
VPP
PB5
PB4
PB3
PB2
PB1
VDDA
USBVCC
USBDM
USBDP
VSSA
PA0
PA1
NC
NC
NC
PA2
PA3
PA4
PA5
PA6
PA7
PB0
X3302 24MHz
USB REQ TP3304
USB REQ
(P2) RESET
TP3309 GND
DS3-
DS3+
SDA USB
TP3006 SDA USB
SCL USB
TP3005 SCL USB
COMM BUS (P1, P2)
USB (P1)
Y (3/3)
(USB HUB CTRL/USB MONITOR CTRL)
B-SS1696<08>-Y -P3

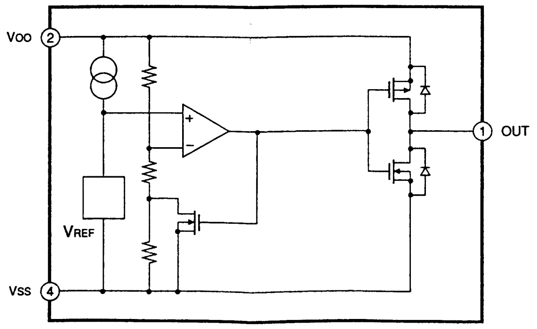
Y Board Waveforms

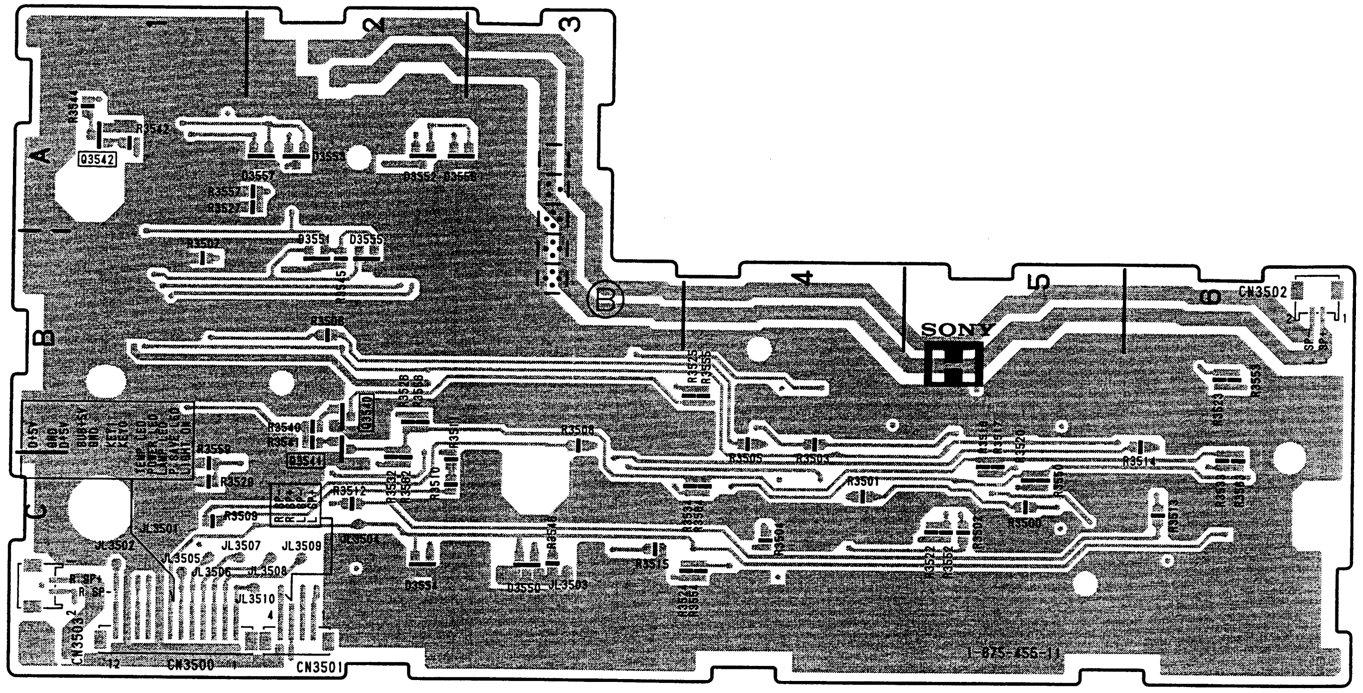
①  3.2 Vp-p TP3202 HD	②  3.2 Vp-p TP3203 VD	③  4.5 Vp-p TP3204 SCL400K	④  4.5 Vp-p TP3301 SCL100K
⑤  4.5 Vp-p TP3302 SDA100K			

TC7S66FU (IC3401)


IN/OUT ①
OUT/IN ②
GND ③
⑤ Vcc
④ CONT

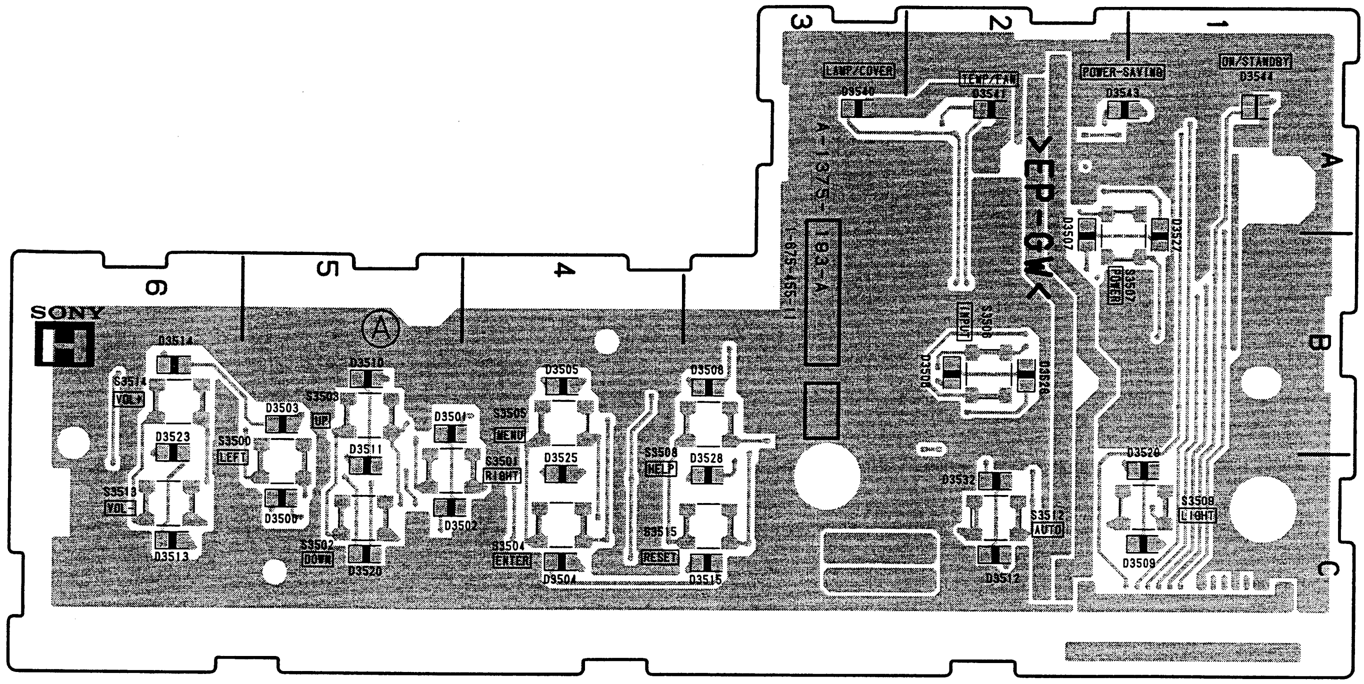
S-80842ANNP-ED4-T2 (IC3201)
S-80828ANNP-ED4-T2 (IC3202)


VDD ②
VREF
VSS ④
① OUT


SONY
H
CN3500
CN3501
CN3502
CN3503
1-675-456-11

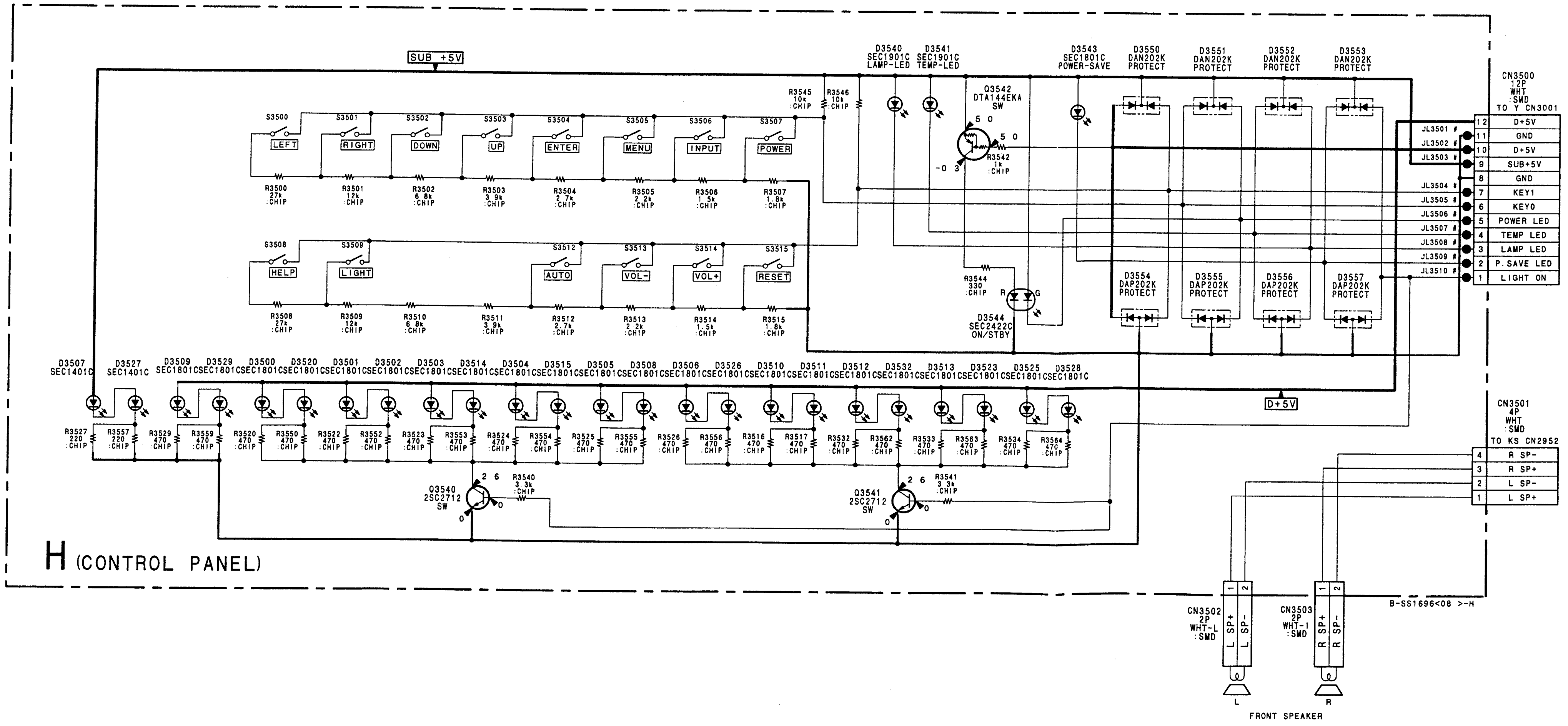
H – B SIDE –

SUFFIX ; -11

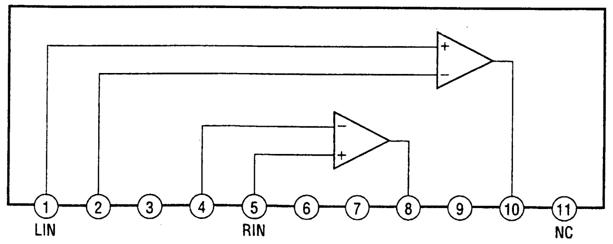

SONY
H
A-1675-456-11
LAMP/COVER
TEMP/FAN
POWER-SAVING
ON/STANDBY
LEFT
UP
DOWN
MENU
RIGHT
ENTER
HELP
RESET
VOL+
VOL-
AUTO
INPUT
POWER
LIGHT

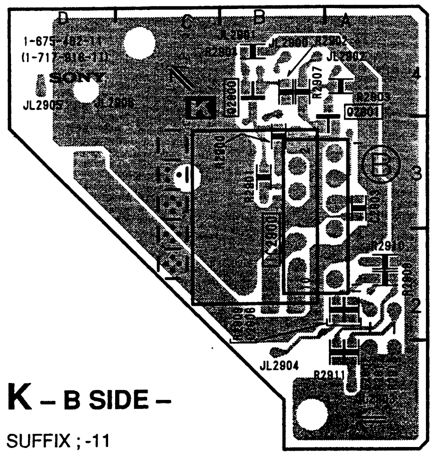
H – A SIDE –

SUFFIX ; -11


H (CONTROL PANEL)
SUB +5V
D+5V
S3500 LEFT
S3501 RIGHT
S3502 DOWN
S3503 UP
S3504 ENTER
S3505 MENU
S3506 INPUT
S3507 POWER
S3508 HELP
S3509 LIGHT
S3512 AUTO
S3513 VOL-
S3514 VOL+
S3515 RESET
D3540 SEC1901C LAMP-LED
D3541 SEC1901C TEMP-LED
Q3542 DTA144EKA SW
D3543 SEC1801C POWER-SAVE
D3544 SEC2422C ON/STBY
D3550 DAN202K PROTECT
D3551 DAN202K PROTECT
D3552 DAN202K PROTECT
D3553 DAN202K PROTECT
D3554 DAP202K PROTECT
D3555 DAP202K PROTECT
D3556 DAP202K PROTECT
D3557 DAP202K PROTECT
Q3540 2SC2712 SW
Q3541 2SC2712 SW
CN3500 12P WHT :SMD TO Y CN3001
12 D+5V
11 GND
10 D+5V
9 SUB+5V
8 GND
7 KEY1
6 KEY0
5 POWER LED
4 TEMP LED
3 LAMP LED
2 P.SAVE LED
1 LIGHT ON
CN3501 4P WHT :SMD TO KS CN2952
4 R SP-
3 R SP+
2 L SP-
1 L SP+
CN3502 2P WHT-L :SMD
CN3503 2P WHT-I :SMD
FRONT SPEAKER
B-SS1696<08 >-H

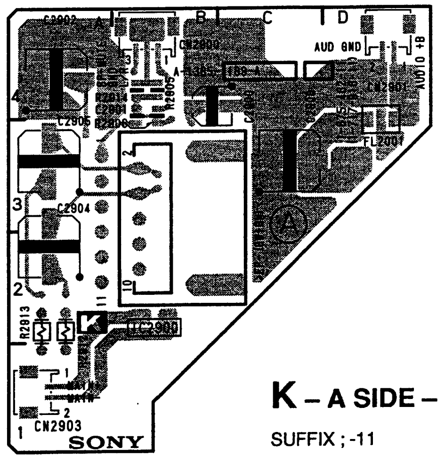
TDA2009A (IC2900)


1
2
3
4
5
6
7
8
9
10
11
LIN
RIN
NC


1-675-482-11
(1-717-916-11)
SONY
JL2905
JL2904
R2911
K

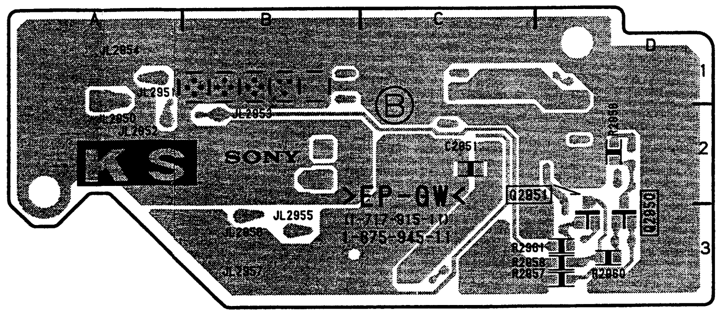
K – B SIDE –

SUFFIX ; -11


AUD GND
AUDIO +B
C2904
C2906
R2813
IC2900
FL2001
CN2903
SONY

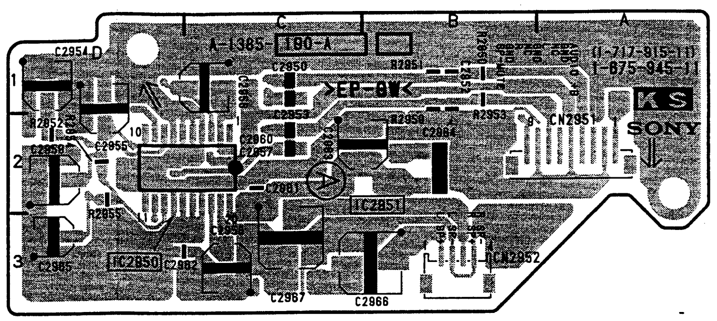
K – A SIDE –

SUFFIX ; -11


KS
SONY
>EP-GW<
1-717-915-11
1-675-945-11
JL2954
JL2955
Q2951
Q2950
R2957
C2960

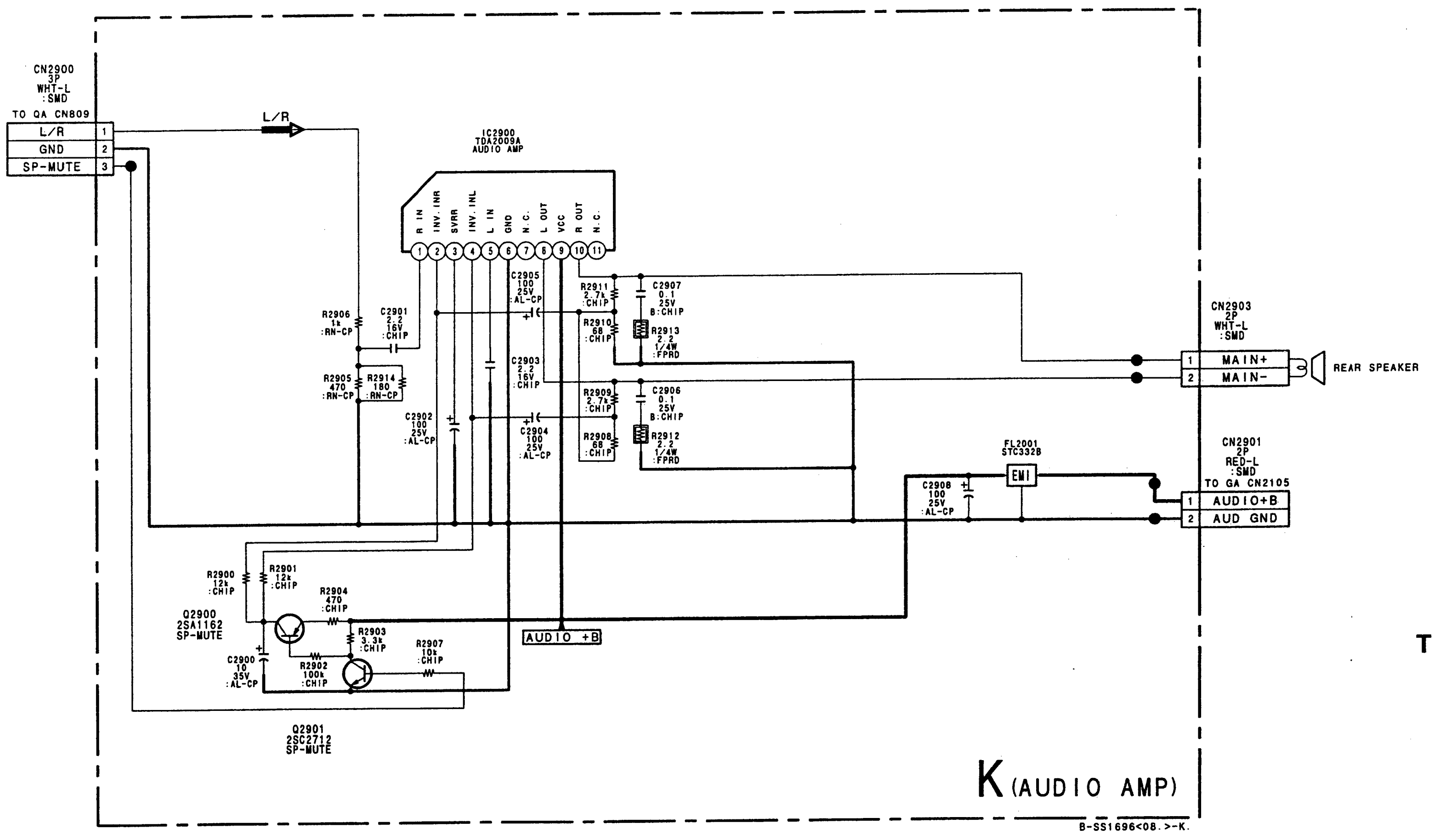
KS – B SIDE –

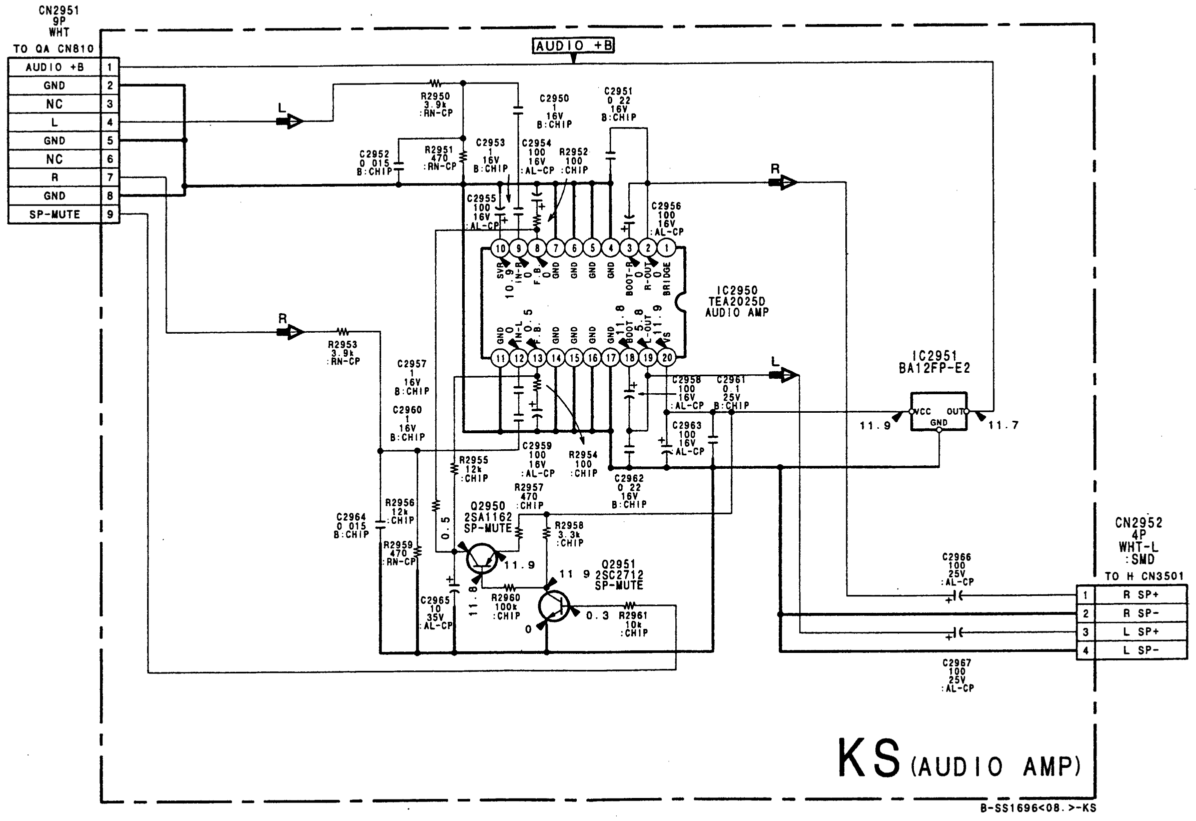
SUFFIX ; -11


A-1385-180-A
>EP-GW<
1-717-915-11
1-675-945-11
KS
SONY
CN2951
IC2950
IC2951
C2954
C2967
C2966
C2952

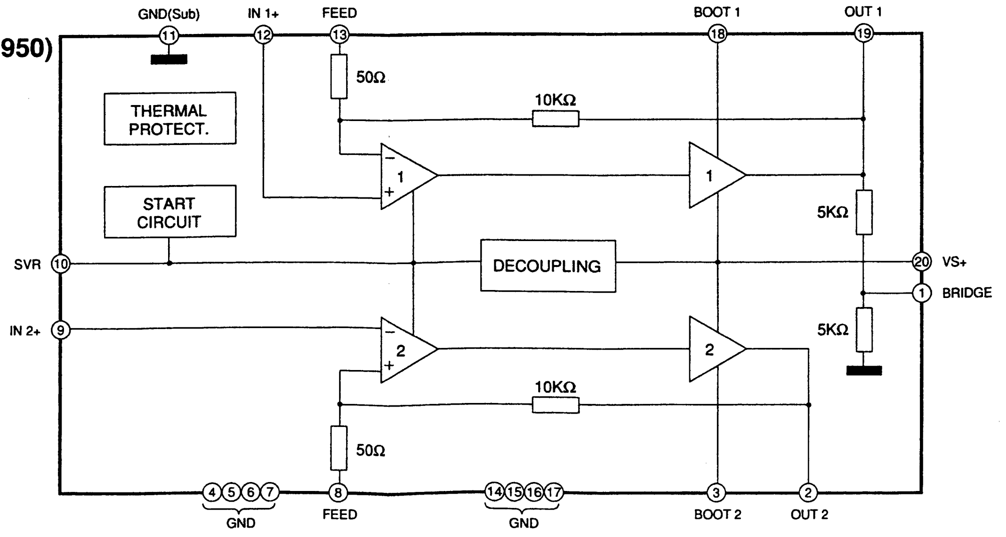
KS – A SIDE –

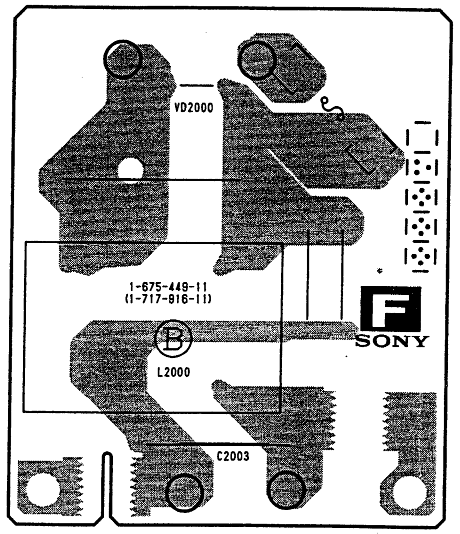
SUFFIX ; -11


CN2900
3P
WHT-L
:SMD
TO QA CN809
L/R
GND
SP-MUTE
L/R
IC2900
TDA2009A
AUDIO AMP
R IN
INV.INR
SVRR
INV.INL
L IN
GND
N.C.
L OUT
VCC
R OUT
N.C.
CN2903
2P
WHT-L
:SMD
MAIN+
MAIN-
REAR SPEAKER
FL2001
STC332B
EMI
CN2901
2P
RED-L
:SMD
TO GA CN2105
AUDIO+B
AUD GND
AUDIO +B
Q2900
2SA1162
SP-MUTE
Q2901
2SC2712
SP-MUTE
K (AUDIO AMP)
B-SS1696<08.>-K.


CN2951
9P
WHT
TO QA CN810
AUDIO +B
GND
NC
L
GND
NC
R
GND
SP-MUTE
AUDIO +B
IC2950
TEA2025D
AUDIO AMP
IC2951
BA12FP-E2
Q2950
2SA1162
SP-MUTE
Q2951
2SC2712
SP-MUTE
CN2952
4P
WHT-L
:SMD
TO H CN3501
R SP+
R SP-
L SP+
L SP-
KS (AUDIO AMP)
B-SS1696<08.>-KS

TEA2025D-013TR (IC2950)


GND(Sub)
IN 1+
FEED
BOOT 1
OUT 1
50Ω
10KΩ
THERMAL PROTECT.
START CIRCUIT
5KΩ
SVR
DECOUPLING
VS+
BRIDGE
IN 2+
5KΩ
10KΩ
50Ω
GND
FEED
GND
BOOT 2
OUT 2


VD2000
1-675-449-11
(1-717-816-11)
F
SONY
L2000
C2003

F – B SIDE –

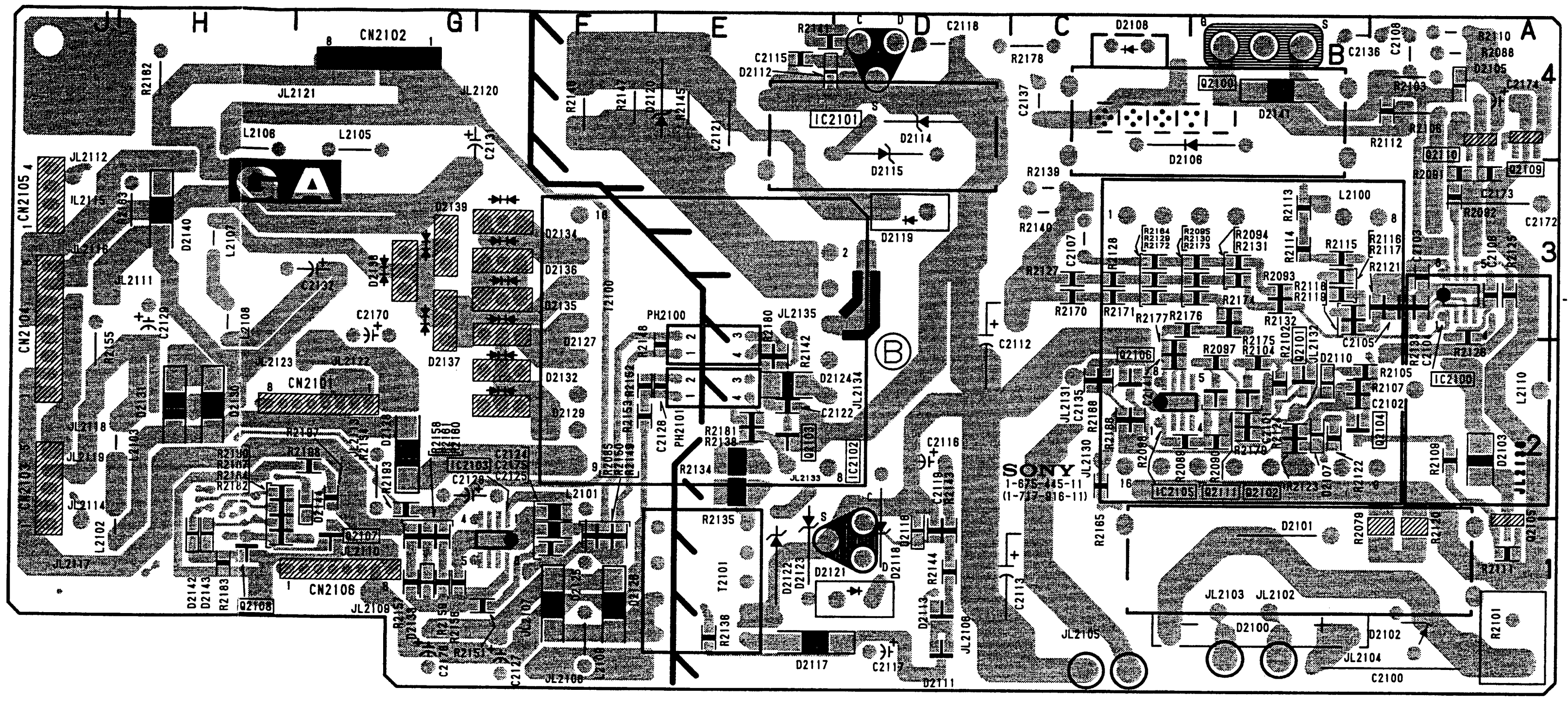
SUFFIX ; -11

GA

1-675-445-11

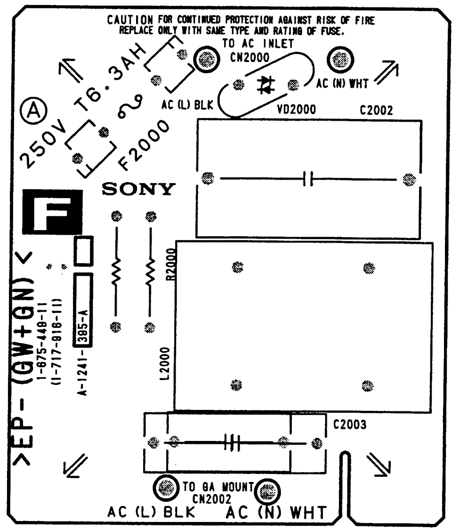
IC2100	* A-2
IC2101	* D-4
IC2102	D-4
IC2102	D-2
IC2102	* D-2
IC2103	* F-2
IC2104	H-1
IC2105	* C-2
Q2100	B-4
Q2100	* B-4
Q2101	* B-2
Q2102	* B-2
Q2103	* E-2
Q2104	* A-2
Q2106	* C-2
Q2107	* G-1
Q2108	* H-1
Q2109	* A-3
Q2110	* A-4
Q2111	* B-2

*:B Side mount


GA
CN2102
JL2121
JL2120
L2106
L2105
IC2101
D2114
D2115
D2108
D2106
L2100
PH2100
JL2135
SONY
1-675-445-11
(1-717-816-11)
CN2101
CN2106
T2101
D2121
D2101
D2100
JL2103
JL2102
JL2104
C2100
IC2100
IC2105
Q2107
Q2108
Q2106

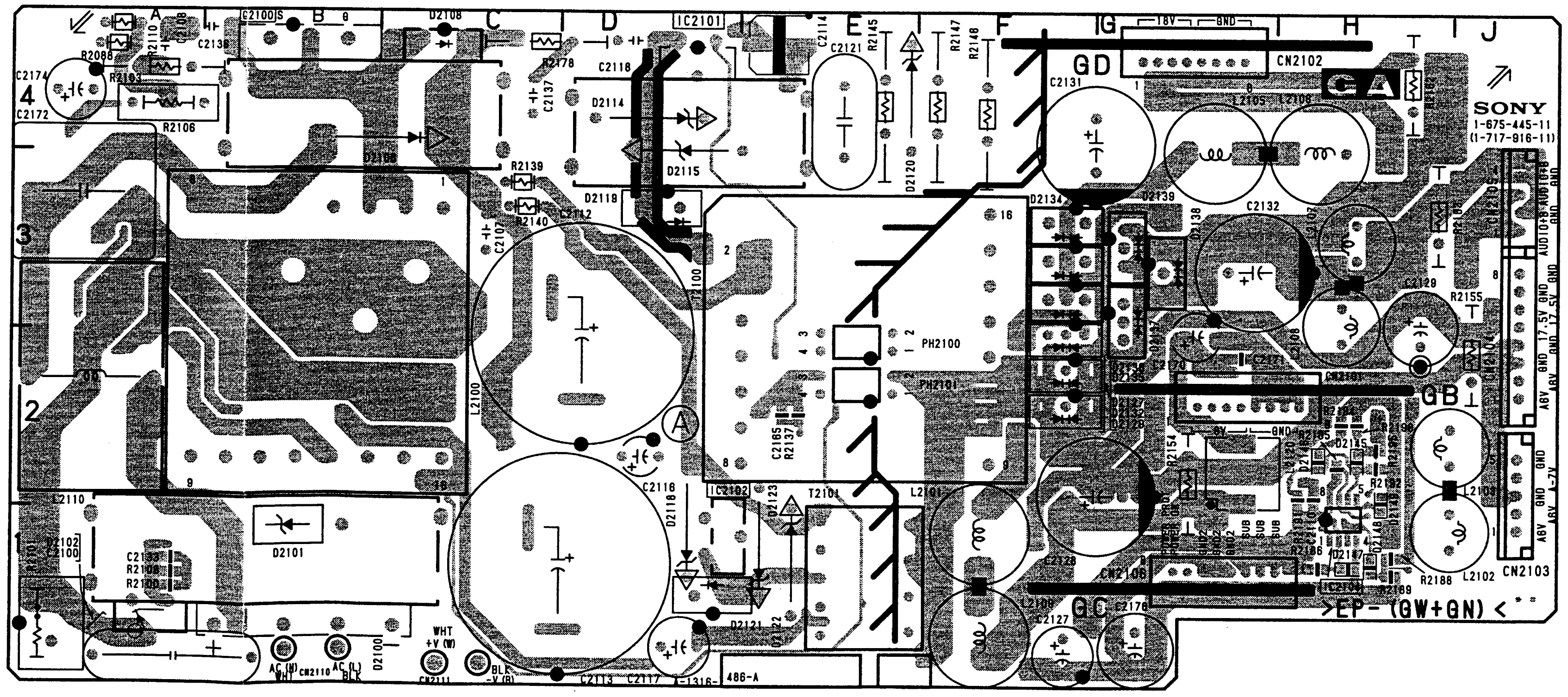
GA – B SIDE –

SUFFIX ; -11


CAUTION FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.
TO AC INLET
CN2000
AC (L) BLK
AC (N) WHT
Ⓐ
250V T6.3AH
F2000
VD2000
C2002
SONY
F
R2000
L2000
1-675-449-11
(1-717-816-11)
A-1241-395-A
>EP- (GW+GN) <
C2003
TO GA MOUNT
CN2002
AC (L) BLK
AC (N) WHT

F– A SIDE –

SUFFIX ; -11

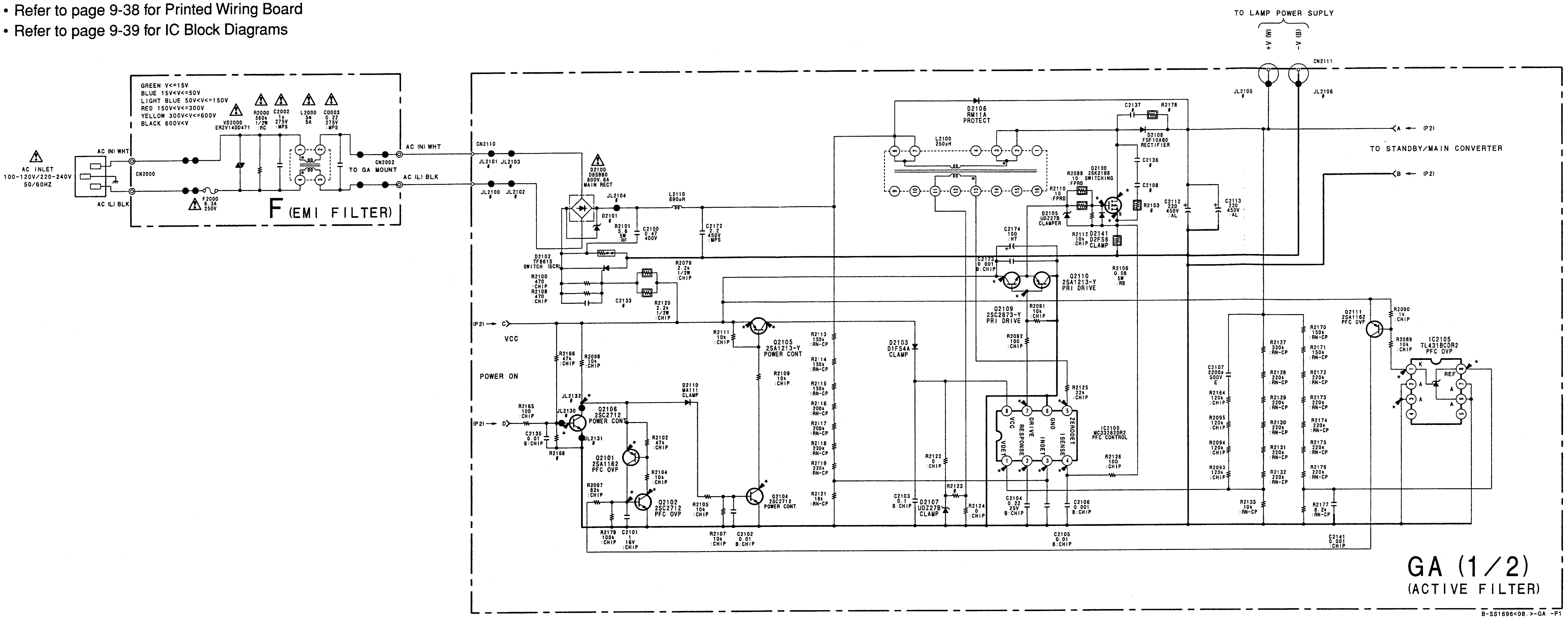

IC2101
CN2102
GD
GA
SONY
1-675-445-11
(1-717-816-11)
PH2100
PH2101
T2101
L2100
D2101
IC2102
GB
GC
CN2103
>EP- (GW+GN) <
AC (N) WHT
AC (L) BLK
WHT +V (W)
BLK -V (B)

GA– A SIDE –

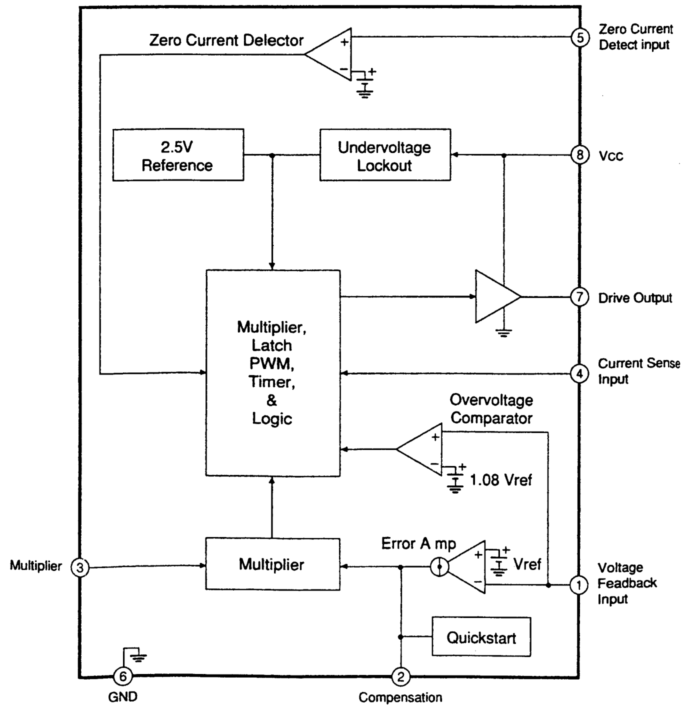
SUFFIX ; -11

F, GA (1/2)

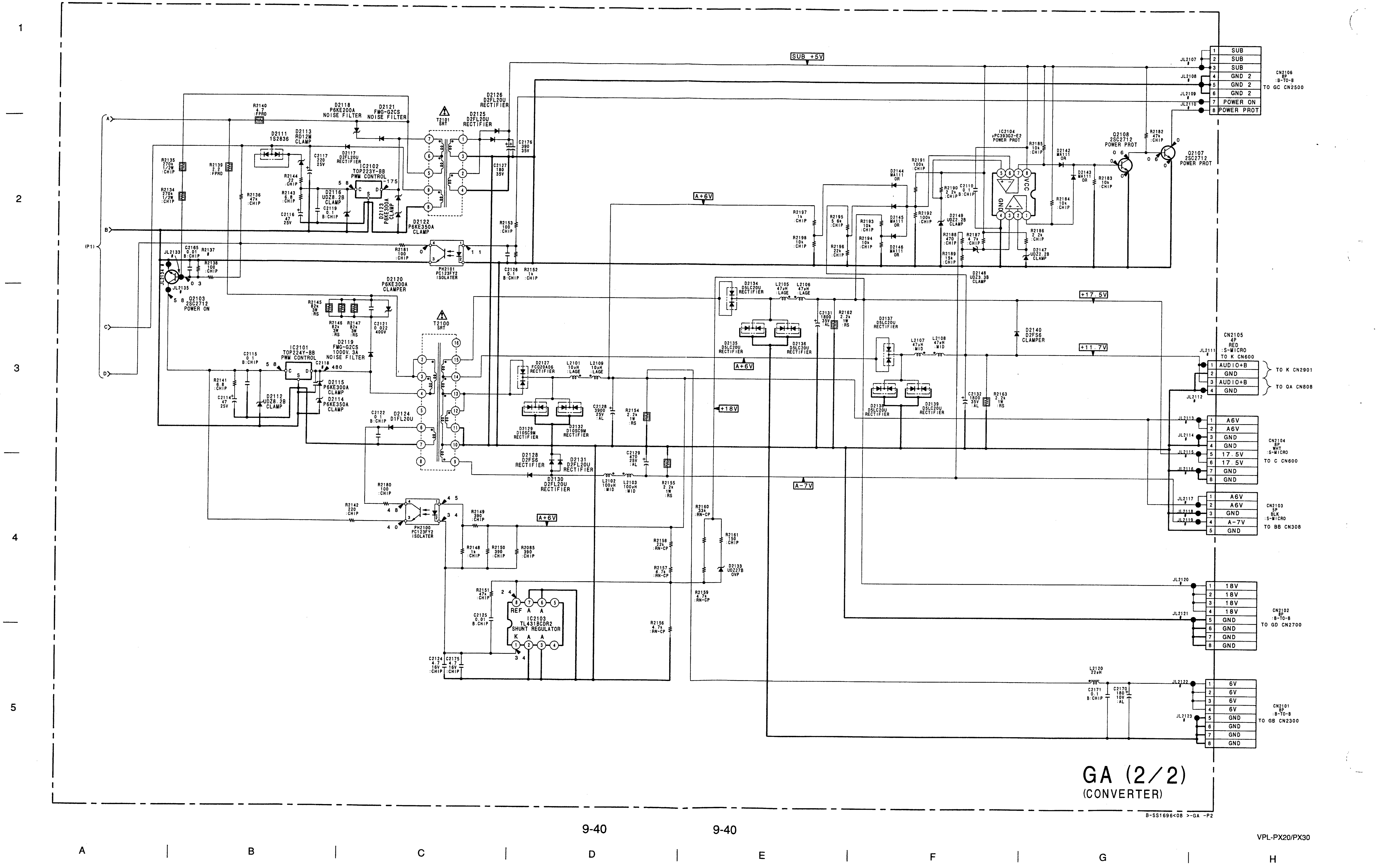
- Refer to page 9-38 for Printed Wiring Board
- Refer to page 9-39 for IC Block Diagrams

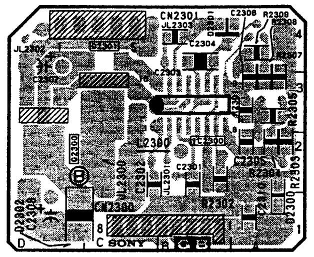

TO LAMP POWER SUPLY
+V (W)
-V (B)
CN2111
GREEN V<=15V
BLUE 15V<V<=50V
LIGHT BLUE 50V<V<=150V
RED 150V<V<=300V
YELLOW 300V<V<=600V
BLACK 600V<V
AC INLET
100-120V/220-240V
50/60HZ
CN2000
AC (N) WHT
AC (L) BLK
F2000
6.3A
250V
VD2000
ERZV14D0471
CN2002
TO GA MOUNT
F (EMI FILTER)
CN2110
D2100
D6SB80
600V 6A
MAIN RECT
L2110
690μH
D2106
RM11A
PROTECT
L2100
250μH
D2108
FSF10A60
RECTIFIER
Q2100
2SK2198
SWITCHING
D2105
UDZ27B
CLAMPER
D2141
D2FS6
CLAMP
C2112
220
450V
C2113
220
450V
TO STANDBY/MAIN CONVERTER
A (P2)
B (P2)
D2102
TF861S
SWITCH (SCR)
Q2110
2SA1213-Y
PRI DRIVE
Q2109
2SC2873-Y
PRI DRIVE
VCC
POWER ON
(P2) C
(P2) D
Q2105
2SA1213-Y
POWER CONT
D2103
D1FS4A
CLAMP
D2110
MA111
CLAMP
Q2106
2SC2712
POWER CONT
Q2101
2SA1162
PFC OVP
Q2102
2SC2712
PFC OVP
Q2104
2SC2712
POWER CONT
D2107
UDZ27B
CLAMP
IC2100
MC33262DR2
PFC CONTROL
VCC
DRIVE
GND
ZERODET
VOET
RESPONSE
INDET
ISENSE
Q2111
2SA1162
PFC OVP
IC2105
TL431BCDR2
PFC OVP
GA (1/2)
(ACTIVE FILTER)
B-SS1696<08.>-GA -P1

MC33262DR2 (IC2100)


Zero Current Delector
Zero Current Detect input
5
2.5V Reference
Undervoltage Lockout
8
Vcc
Multiplier, Latch PWM, Timer, & Logic
7
Drive Output
4
Current Sense Input
Overvoltage Comparator
1.08 Vref
Error A mp
Vref
Multiplier
3
Multiplier
1
Voltage Feadback Input
Quickstart
6
GND
2
Compensation

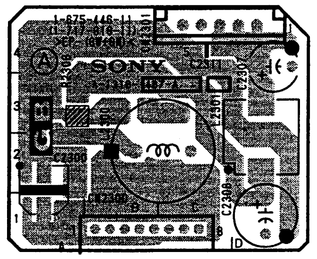
- Refer to page 9-38 for Printed Wiring Board
- Refer to page 9-39 for IC Block Diagrams


1
2
3
4
5
A
B
C
D
E
F
G
H
SUB +5V
A+6V
+17.5V
+11.7V
+18V
A-7V
A+6V
T2101 SRT
T2100 SRT
IC2102 TOP223Y-BB PWM CONTROL
IC2101 TOP224Y-BB PWM CONTROL
IC2103 TL431BCDR2 SHUNT REGULATOR
IC2104 μPC393G2-E2 POWER PROT
PH2101 PC123FY2 ISOLATER
PH2100 PC123FY2 ISOLATER
Q2103 2SC2712 POWER ON
Q2108 2SC2712 POWER PROT
Q2107 2SC2712 POWER PROT
D2118 P6KE200A NOISE FILTER
D2121 FMG-G2CS NOISE FILTER
D2126 D2FL20U RECTIFIER
D2125 D2FL20U RECTIFIER
D2120 P6KE300A CLAMPER
D2119 FMG-G2CS 1000V, 3A NOISE FILTER
D2127 FCQ20A06 RECTIFIER
D2128 D2FS6 RECTIFIER
D2131 D2FL20U RECTIFIER
D2130 D2FL20U RECTIFIER
D2134 D5LC20U RECTIFIER
D2140 D2FS6 CLAMPER
D2133 UDZ27B OVP
SUB
SUB
SUB
GND 2
GND 2
GND 2
POWER ON
POWER PROT
CN2106 8P :B-TO-B TO GC CN2500
CN2105 4P RED :S-MICRO TO K CN600
AUDIO+B
GND
AUDIO+B
GND
TO K CN2901
TO QA CN808
A6V
A6V
GND
GND
17.5V
17.5V
GND
GND
CN2104 8P WHT :S-MICRO TO C CN600
A6V
A6V
GND
A-7V
GND
CN2103 5P BLK :S-MICRO TO BB CN308
18V
18V
18V
18V
GND
GND
GND
GND
CN2102 8P :B-TO-B TO GD CN2700
6V
6V
6V
6V
GND
GND
GND
GND
CN2101 8P :B-TO-B TO GB CN2300
GA (2/2)
(CONVERTER)
B-SS1696<08>-GA -P2



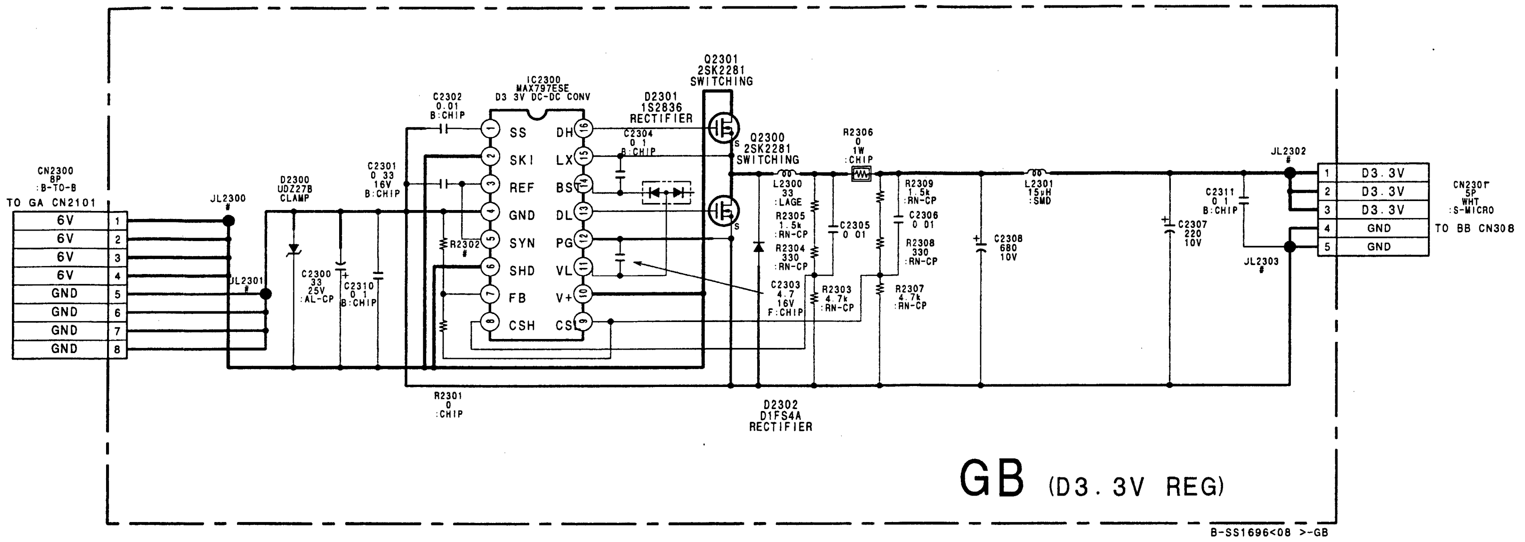
GB – B SIDE –

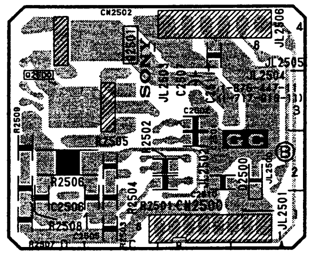
SUFFIX ; -11



GB– A SIDE –

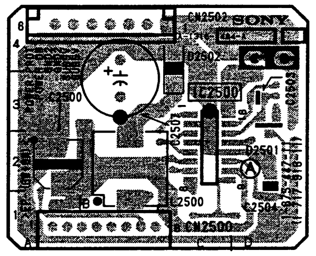
SUFFIX ; -11


CN2300
8P
:B-TO-B
TO GA CN2101
6V
6V
6V
6V
GND
GND
GND
GND
JL2300
JL2301
D2300
UDZ27B
CLAMP
C2300
33
25V
:AL-CP
C2310
0 1
B:CHIP
C2301
0 33
16V
B:CHIP
C2302
0.01
B:CHIP
R2302
R2301
0
:CHIP
IC2300
MAX797ESE
D3 3V DC-DC CONV
SS
SKI
REF
GND
SYN
SHD
FB
CSH
DH
LX
BST
DL
PG
VL
V+
CS
D2301
1S2836
RECTIFIER
C2304
0 1
B:CHIP
Q2301
2SK2281
SWITCHING
Q2300
2SK2281
SWITCHING
D2302
D1FS4A
RECTIFIER
L2300
33
:LAGE
R2305
1.5k
:RN-CP
R2304
330
:RN-CP
C2303
4.7
16V
F:CHIP
R2303
4.7k
:RN-CP
C2305
0 01
R2306
0
1W
:CHIP
R2309
1.5k
:RN-CP
C2306
0 01
R2308
330
:RN-CP
R2307
4.7k
:RN-CP
C2308
680
10V
L2301
15μH
:SMD
C2307
220
10V
C2311
0 1
B:CHIP
JL2302
JL2303
D3.3V
D3.3V
D3.3V
GND
GND
CN2301
5P
WHT
:S-MICRO
TO BB CN308
GB (D3.3V REG)
B-SS1696<08 >-GB



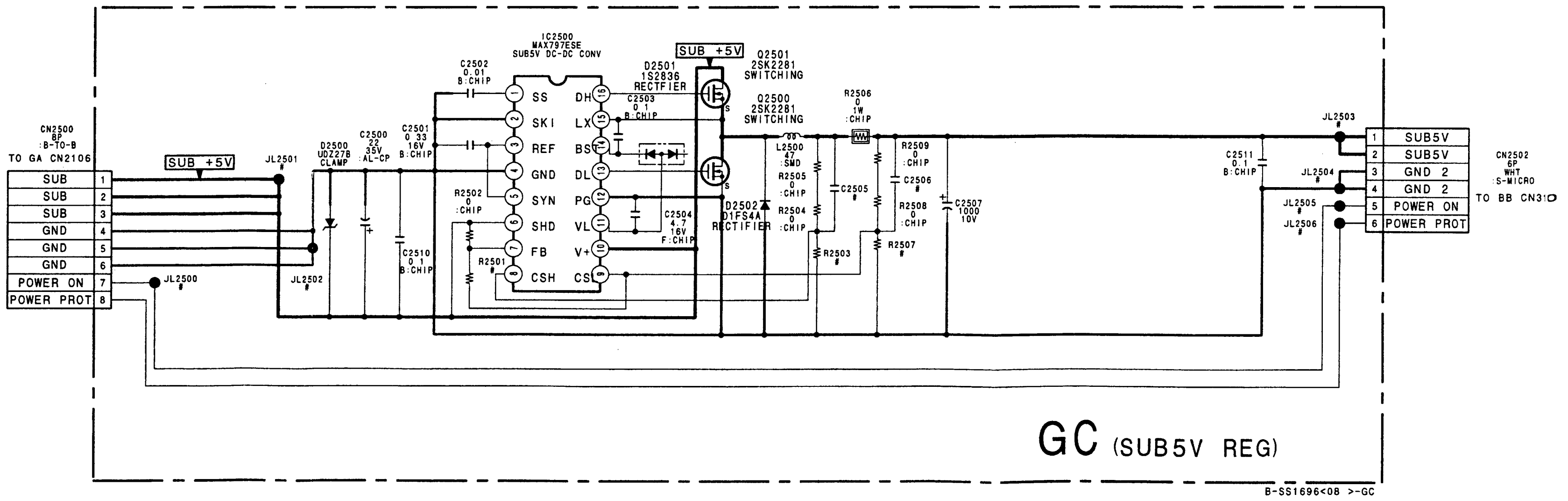
GC – B SIDE –

SUFFIX ; -11



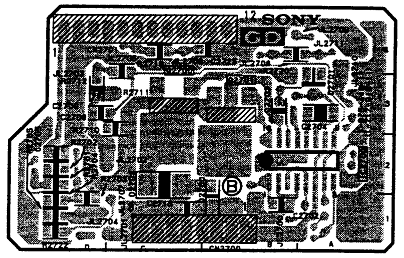
GC– A SIDE –

SUFFIX ; -11


CN2500
8P
:B-TO-B
TO GA CN2106
SUB
SUB
SUB
GND
GND
GND
POWER ON
POWER PROT
SUB +5V
JL2500
JL2501
JL2502
D2500
UDZ27B
CLAMP
C2500
22
35V
:AL-CP
C2501
0 33
16V
B:CHIP
C2510
0 1
B:CHIP
C2502
0.01
B:CHIP
R2502
0
:CHIP
R2501
IC2500
MAX797ESE
SUB5V DC-DC CONV
SS
SKI
REF
GND
SYN
SHD
FB
CSH
DH
LX
BST
DL
PG
VL
V+
CS
D2501
1S2836
RECTFIER
C2503
0 1
B:CHIP
C2504
4.7
16V
F:CHIP
SUB +5V
Q2501
2SK2281
SWITCHING
Q2500
2SK2281
SWITCHING
D2502
D1FS4A
RECTIFIER
L2500
47
:SMD
R2505
0
:CHIP
R2504
0
:CHIP
R2503
C2505
R2506
0
1W
:CHIP
R2509
0
:CHIP
C2506
R2508
0
:CHIP
R2507
C2507
1000
10V
C2511
0.1
B:CHIP
JL2503
JL2504
JL2505
JL2506
SUB5V
SUB5V
GND 2
GND 2
POWER ON
POWER PROT
CN2502
6P
WHT
:S-MICRO
TO BB CN310
GC (SUB5V REG)
B-SS1696<08 >-GC

1

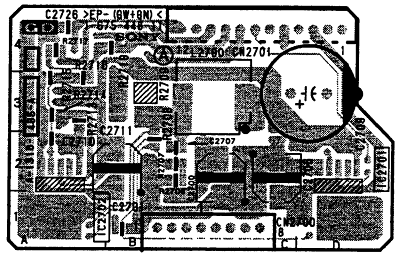
2



GD – B SIDE –

SUFFIX ; -11

3

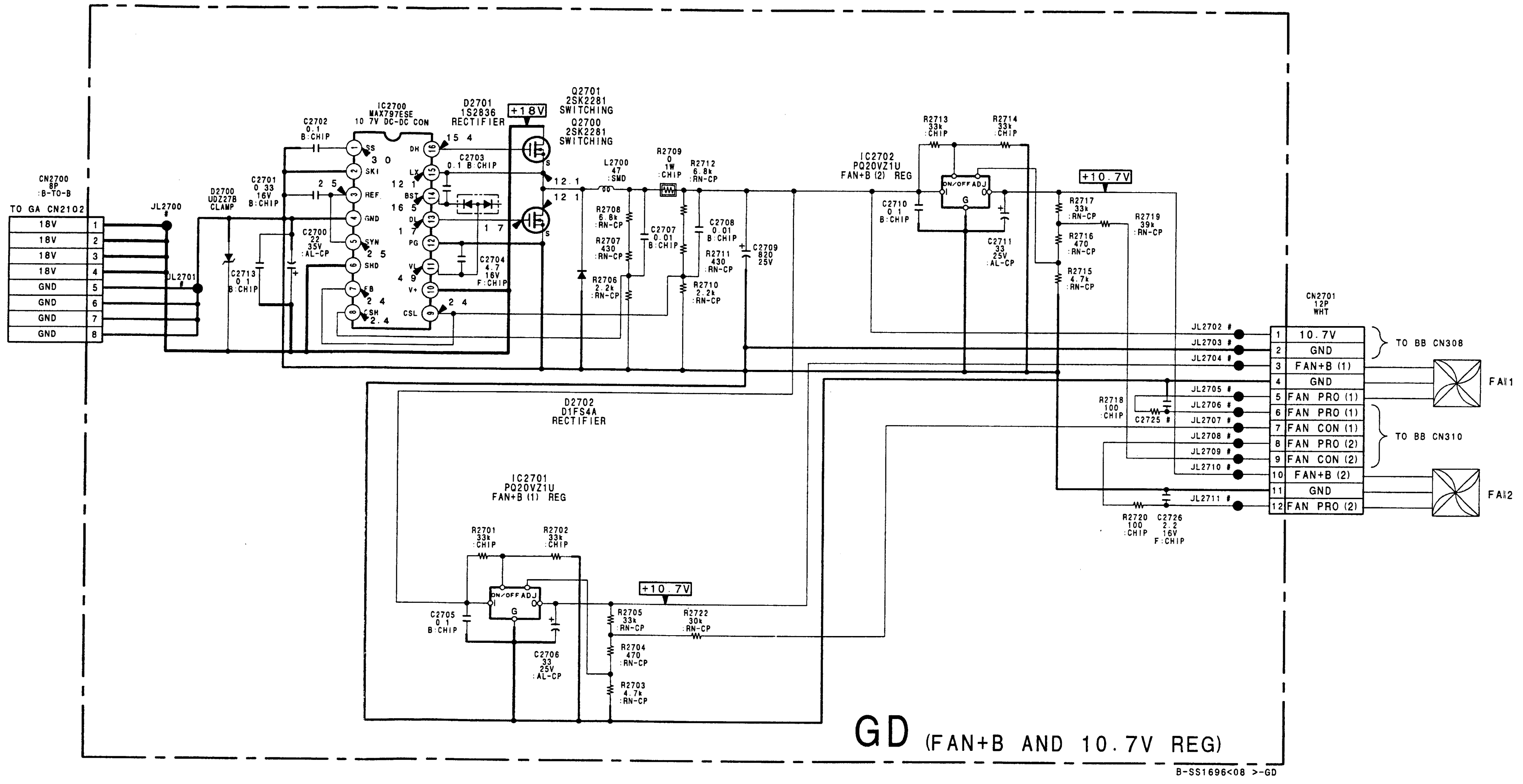


GD– A SIDE –

SUFFIX ; -11

4

5


CN2700
8P
:B-TO-B
TO GA CN2102
18V 1
18V 2
18V 3
18V 4
GND 5
GND 6
GND 7
GND 8
JL2700
JL2701
D2700
UDZ27B
CLAMP
C2701
0 33
16V
B:CHIP
C2713
0 1
B:CHIP
C2702
0.1
B:CHIP
C2700
22
35V
:AL-CP
IC2700
MAX797ESE
10 7V DC-DC CON
SS
SKI
REF
GND
SYN
SHD
FB
CSH
DH
LX
BST
DL
PG
VL
V+
CSL
D2701
1S2836
RECTIFIER
+18V
C2703
0.1 B:CHIP
C2704
4.7
16V
F:CHIP
Q2701
2SK2281
SWITCHING
Q2700
2SK2281
SWITCHING
L2700
47
:SMD
R2709
0
1W
:CHIP
R2712
6.8k
:RN-CP
R2708
6.8k
:RN-CP
R2707
430
:RN-CP
R2706
2.2k
:RN-CP
C2707
0.01
B:CHIP
C2708
0.01
B:CHIP
R2711
430
:RN-CP
R2710
2.2k
:RN-CP
C2709
820
25V
D2702
D1FS4A
RECTIFIER
IC2702
PQ20VZ1U
FAN+B (2) REG
R2713
33k
:CHIP
R2714
33k
:CHIP
ON/OFF ADJ
C2710
0 1
B:CHIP
C2711
33
25V
:AL-CP
+10.7V
R2717
33k
:RN-CP
R2716
470
:RN-CP
R2715
4.7k
:RN-CP
R2719
39k
:RN-CP
CN2701
12P
WHT
JL2702
JL2703
JL2704
JL2705
JL2706
JL2707
JL2708
JL2709
JL2710
JL2711
1 10.7V
2 GND
3 FAN+B (1)
4 GND
5 FAN PRO (1)
6 FAN PRO (1)
7 FAN CON (1)
8 FAN PRO (2)
9 FAN CON (2)
10 FAN+B (2)
11 GND
12 FAN PRO (2)
TO BB CN308
TO BB CN310
FAN1
FAN2
R2718
100
:CHIP
C2725
R2720
100
:CHIP
C2726
2.2
16V
F:CHIP
IC2701
PQ20VZ1U
FAN+B (1) REG
R2701
33k
:CHIP
R2702
33k
:CHIP
C2705
0 1
B:CHIP
C2706
33
25V
:AL-CP
R2705
33k
:RN-CP
R2704
470
:RN-CP
R2703
4.7k
:RN-CP
R2722
30k
:RN-CP
+10.7V

GD (FAN+B AND 10.7V REG)

B-SS1696<08>-GD